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### CENSUS EDITION

## LESSONS. IN BUSINESS

A COMPLETE COMPENDIUM OF HOW TO DO BUSINESS BY THE LATEST and SAFEST METHODS

EMBRACING =

FINANCE; TRADE and SPECULATION; A SHORT COURSE IN BUSINESS LAW; LEGAL FACTS and FORMS of ALL KINDS; CIVIL SERVICE REQUIREMENTS AND FORMS; SPECIAL CHAPTERS ON FARMING, LUMBERING and ALL TRADES WITH LEGAL PAPERS and RULES FOR SAME; WILLS, CONTRACTS and ALL FORMS NEEDED BY THE ORDINARY BUSINESS OR LABORING MAN; ALSO HELPFUL TABLES, SHORT CUTS IN FIGURES FOR RAPID CALCULATIONS, PARCELS POST, UNDERWOOD TARIFF BILL, FEDERAL INCOME TAX NEW BANKING and CURRENCY SYSTEM, ETC,

## By E. T. ROE, LL. B.

For twenty years U. S. District Attorney, author of "Criminal Procedure of U. S. Courti, "Business and Law," etc.

## THE JOHN A. HERTEL COMPANY

\* : PUBLISHEPS AND BOOKSELLERS

TORONTO 1921 1921 CHICAGO

#### NEW ENLARGED EDITION

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## **FOREWORD**

## SEVEN HUNDRED LESSONS IN BUSINESS

This book is to business men what Roberts' "Rules of Order" is to a parliamentary body. To unusual questions that come up in the course of any business it furnishes the answers, explains the law, and gives the safest practice.

It is the helpful friend, the silent counselor of everyone engaged in business of any kind. It enables a business man to keep clear of complication and to do for himself what needs to be done in any situation, instead of having to get help or advice from others. It is a library of Business Common Sense and Law, available at any moment, no matter what question or emergency may arise.

It is equally useful to the beginner and to the veteran of business. It is absolutely dependable throughout. Experts and specialists in every line coöperated in its compilation. The legal parts alone engaged the best ability of eight prominent lawyers. The knowledge it contains is positive. It was furnished by men each of whom had devoted his life to mastering the subject of which he treats; and all of it has been edited carefully, revised, checked up, and brought down to the very date of going to press.

In addition to practical thought-saving and time-saving information in connection with business or personal affairs, the Seven Hundred Lessons lives up to its title by giving in compact form much that is not usually found outside of a cyclopedia; such as social and official correspondence forms; authoritative census tables; income tax requirements; how to promote an enterprise; hiring or discharging help; road rules fence laws; the law of lost and found property; farm statistics; the rights of parents; the rights of children; how to locate a mine; how to become naturalized; how to mark goods; what you can send by parcel post; how many nails there are in a pound; what time it is in any part of the world; the interest, limitation and

exemption laws of all the states; workmen's compensation for injuries; how to dress a show window; how to vote; how to issue stock certificates; what a broker's duties and liabilities are; how to own a dog; how to make an affidavit; and a highly varied collection of other useful things such as modern applied science, conditions of life, and law, industry and trade since the war; and the best usages in business and social relations.

The general plan and the typography of the book are such that any subject or detail can be reached instantly. The arrangement of subjects is systematic, and uniform throughout. Details are given in paragraphs that begin with heavy type, in such manner as to arrest the eye.

The whole book is packed full of direct, simple, and reliably stated facts, for every day and every useful occupation. It is a Business University, a handbook of practical knowledge, a safe guide for those who would accomplish the most in the best manner and the least time. Everything in it is known to someone. No one person knows all that is in it. But between what each knows and what he can make his own by reference to the book, no man need go uninformed upon any topic essential to his prosperity.

THE PUBLISHERS

December, 1920.

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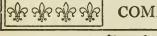
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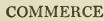
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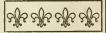
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OMMERCE is King," remarked Thomas Carlyle, and if the aphorism was true in his day, how much more truthful and pertinent is it at the present time! To it England owes her wealth, power, dominion and influence, and by means of it Amer-

ica bids fair to outstrip all history in the achievement of commercial success and importance.

The close and steadfast pressing of our material interests during the past twenty years; the wonderful inventive genius of our people, so richly productive in labor and time-saving devices and processes of manufacture, and their aggressive, inquisitive and enterprising spirit have combined to place this nation in the front ranks, if not in the lead, of the great civilized powers of the world. The political expansion of the United States is only a visible and symbolical representation of its growth in commerce, manufacture, art, education and general progress. With our varied climates extending now from the tropics to the frozen north, our vast seaboard, expansive lakes, broad, rolling rivers, exhaustless mineral and agricultural wealth, no argument is necessary to establish beyond peradventure the manifest destiny of this nation.

## FINANCE, CREDIT AND COMMER-CIAL EXCHANGE.

Money and Credit are so closely interwoven with the commercial life of a nation that it is essential for every person engaged in business to have some knowledge of the

part which they play in it.
The Part Played by Banks.—As generally understood, bankers are merely middle men who borrow from one set of persons at a rate in order to lend to another set at a greater rate, the difference between the two rates being their margin of profit. But in reality they are much more than this. They are conservers of a nation's capital and promoters of its trade and industry.

The most common function of banks is the discount of commercial paper running for short periods of time and representing actual transfers of property in the business world. In this way the bank exchanges its well known credit for the less known credit of merchants and manu-

facturers.

How Banks Increase the Potency of Capital.—By means of banking, a given amount of wealth acquires nearly the same potency when diffused among millions as when concentrated in the hands of a few. Banks take the place of large capitalists; they gather into one fund the small savings or reserve-wealth of the masses, and thus render these as available for the employment of labor as if they belonged to a single possessor. And also they supply the knowledge and enterprise requisite for the employment of that wealth, which is in great part wanting on the part of the actual owners of it. Hence the banking system accomplishes the same results as if the wealth of a country were concentrated in the hands of a few large capitalists, and yet allows of that wealth being actually diffused among tens of thousands of owners. The banking system, in short, immensely increases the potency of capital, which has quite as much to do with national progress as the actual amount of the national wealth.

Banks, as before stated, take the place of large capitalists; so that the money expended by the wealthy and enterprising portion of the community in trade or industrial works, such as railways, etc., although dispersed in wage payments among the laboring classes, who do not themselves employ the money thus acquired in reproductive industry, is not thereby withdrawn from production, seeing that it immediately finds its way back into the banks,

who employ it just as a large capitalist would.

If there were no banks, a large portion of the money employed in the construction of a railway would stagnate

as small heards in the hands of thousands of owners. and a very long period would elapse before it became again available for production by returning into the hands of large capitalists; whereas, through the agency of banks, the small sums are quickly re-united, and become disposable anew for industrial investment. In this way capital is re-collected as soon as dispersed, and hence, by means of Banking, the reserve-wealth of a country. although ceaselessly dispersed in industrial expenditure, practically remains massed or concentrated in compartively few hands, and therefore in the most effective condition for augmenting production. In this way a very large amount of capital which would otherwise become "fixed," in consequence of its being employed in industrial enterprise, immediately reappears as "floating" capital, available for similar investments by other parties.

Financial panics in America were common before the adoption of the Federal Reserve Act of December 23, 1913. They were chiefly due to the want of a centrally controlled banking system. That there had long been a movement among American bankers to remedy this deficiency is strikingly shown by the following extract from an article by the Hon. A. Piatt Andrew, published in the "American Academy of Political and Social Science" for Novem-

ber, 1910.

"No phase of recent American banking is more striking than the groping of over 25,000 independant banks toward some coherent organization and leadership. This is shown not merely in the consolidation of great city banks and the affiliation of banks and trust companies, but in the development of association and joint control through the clearing houses, and the absorption on the part of these institutions of new and far-reaching functions. The adoption of methods of mutual supervision through clearing-house bank examinations which has been so much in evidence in western and middle cities during recent years is one step in this The more careful regulations governing the conduct of firms which are admitted to membership in the clearing-house, and with regard to the non-member institutions which clear through members, about which so much controversy has centered during recent years in New York. is another instance of the same tendency. Above all, the resort to clearing-house loan certificates in times of unsettlement which became so surprisingly general throughout the country in 1907 is the best illustration of the way in which our banks are forced at times to act together under common leadership. It shows, too, how an ingenious people can improvise a needed institution if it does not already exist.

"The operations of the clearing-house associations during the panic of 1907 were essentially akin to the ordinary

functions of the Bank of England, the Reichsbank, and the Bank of France. With the banks as customers, these clearing-house associations made loans on collateral, rediscounted notes, and made the reserves of all of the banks available for each other in practically the same way as do the great national banks of Europe. operations were of an identical nature, but there were two essential differences in form and in measure of effectiveness. First, the arrangements had to be devised in the stress of an emergency, and only began to operate after the panic had become acute, and it was no longer possible to forestall the general collapse. Second, there was no general clearing-house association for the country as a whole, and even though the banks of each locality were able by a belated expedient to pool their reserves and transform their commercial paper into available, liquid assets, there was no arrangement for a similar settlement of accounts as between different cities. Hence the struggle which was witnessed, of each locality endeavoring to fortify itself at the expense of every other locality-a spectacle which could not have occurred in any European country and which we ought to make impossible of recurrence here."

Origin and Nature of Credit.—There can be no system of credit until there has been a considerable accumulation of capital; for, when capital first begins to be accumulated, those who possess it apply it directly in aid of their own labor. As a country increases in wealth, many persona acquire capital which they cannot employ in their own business, or can only employ by offering inducements to purchase in the shape of deferred payments. As soon as a sufficient capital exists, a system of credit has a natural tendency to arise, and will continue to grow with the increase of capital, unless it be checked by a general insecurity of property, by imperfect legal securities for the payment of debts, or by a want of confidence in the integrity of the parties who desire to borrow. When the society and laws of a country are in a sound state, and capital is abundant, credit comes fully into operation.

In a recently published article, the Hon. George E. Roberts, Director of the United States Mint, thus lucidly discusses the nature and value of credit as a substitute for

money:

"There is a very common misunderstanding of the meaning of the word 'credit' when used as a banking term. Some people associate it wholly with advances of money or goods upon time, but credit is also a substitute for money in cash transactions. When a customer gives a merchant a check for a bill of goods and the merchant deposits the check for his own bank account and simul-

taneously draws against it, credit is being used, and a great convenience and economy are effected over payments of money from hand to hand. When payments are between distant localities the advantages are obviously greater. The great bulk of the payments between the East and West are accomplished by offsetting the purchases they make of each other. The great bulk of the bank deposits of the country are created in this way, and not by passing money over the counter. All of this involves the use of credit. This method of doing business will not be changed. The public will not go back to a greater use of money from hand to hand; on the contrary, it is certain that the various forms of bank credit will more and more become the means by which payments are made."

In Time Transactions credit is given either in goods or in money. By the former mode goods are supplied to a purcheser, for which the payment is deferred for some fixed period, or indefinitely, and the person who supplies them indemnifies himself for the delay by an increased price. By the latter mode, money is advanced, upon security or otherwise, and interest is charged upon the loan. Both these modes are used, in conjunction with each other. in the large transactions of commerce. A manufacturer, for example, sells to a merchant, for exportation, goods to the value of a thousand dollars. The merchant however is unable to pay for them until he has received remittances from abroad; and the manufacturer, aware of his solvency, is contented to receive in payment a bill of exchange due at some future period. But in the meantime he is himself in need of money to carry on his business, and instead of waiting for the payment of the bill when it shall become due, he gets it discounted by a banker or other capitalist. Thus, having given to one person credit in goods, he obtains credit from another in money.

Deposits, Discounts and Loans.—It is very important for merchants requiring credit accommodations of banks, that they place their deposits in the kind of banking institution that can most certainly and conveniently accommodate them in the matter of discounts and loans. Depositors are given preference over outsiders on the loanable funds of

the bank in which their money is deposited.

The State Banks, that is to say, banks organized under the laws of a State instead of under the National banking act, are not, in most of the States, required to hold a reserve against savings and time deposits, and therefore, are usually in better position than the National banks to accommodate their depositors by advances to them on notes, drafts, bills of exchange, and collaterals of various

descriptions.

The National Banks are required to maintain a certain portion of cash reserves to their liabilities, and when their reserves fall to a certain point they must stop loaning.

Under the new Federal reserve system (see page 462) only those National Banks that are not situated in a central reserve city may make loans on real estate, while in most of the States all State Banks may advance such loans. This makes patronage of State Banks generally desirable in localities where loans on real estate are common.

Where, however, business is to be transacted with persons in other States, the National Banks have an advantage over the State Banks, since the residents of one State are ordinarily not acquainted with the provisions of the banking laws of another State, while they know the general character of the provisions of the National Bank Act.

Trust Companies, in nearly all the States, have most of the characteristics of the State Banks. Besides having authority to execute trusts, they may receive deposits, lend money on real estate and any other security, and their reserve requirements are lower than for National Banks. In fact they are not a distinct class of banking institutions, but only State Banks with additional powers.

"The Money Market," explains Horace White, in a recent issue of The Annals of the American Academy, "consists of the loanable funds in the country. The money which people are using in their daily business, which passes from hand to hand in retail trade is no part of the money market. Such money is not marketable, because it cannot be recalled from the immediate service which it is rendering to society. The bulk of loanable funds of the country consists of bank credits which are bottomed on gold, and the magnitudes of such credits is limited by the amount of lawful money held by the banks as reserves. Bank notes are not available as reserves of National Banks, although they are such for State Banks and Trust Companies.

"The Stock Exchange is a meeting place of the buyers and sellers of invested capital; that is, of incomes present or prospective. This is a comparatively modern institution because invested capital transferable by negotiable in-

struments is of modern origin. There were exchanges in the ancient world where traders met to deal in various kinds of movable goods. The Agora of Greece and the Forum of Rome, and the Fairs of the Middle Ages were such exchanges, but negotiable incomes (stocks and bonds) did not then exist. At the present time no person of intelligence keeps surplus money uninvested. He buys some interest-bearing security, or puts it in a savings bank, in which case the savings bank buys an interest-bearing security, or employs it in such manner as to yield an income.

"Capital is the result of saving. If not the parent of civilization, it is the indispensable promoter and handmaid of it, since capital gives mankind the leisure and the means to take new steps forward in solving the problems of human existence. It is desirable that there should be facilities for Investing the savings of the people without serious delay. Such facilities promote saving. It is desirable also that investments should be convertible into cash without delay. The raison d'etre of a stock exchange is to supply a place where money can be invested quickly and recovered quickly, or investments made upon which the investor can borrow money if he so desires. It is an incidental advantage that the stock exchange informs all investors, and intending investors, daily and without cost to themselves, of the prices at which they can buy or sell the securities on the active list of the exchange. These prices are made by the competition of buyers and sellers in the market, who are acting under the spur of celf-interest. There is no other way in which true prices can be made. If the quotations so made are not precisely the truth in every case, they are the nearest approach to it that mankind has yet discovered.

"The making of bank loans to stock brokers is bottomed primarily on the confidence which the banker has
in the broker as a person, and secondarily on the goodness of the securities offered. The modus operandi is
substantially this: The broker, knowing from the clearing sheet of yesterday what payments he has to meet today, obtains from his bank in the morning authority to
draw for this aggregate amount at an agreed rate of

interest. As his checks come in during the day the bank certifies them and the banker sends to the broker the bank securities whose market value is greater by a certain margin than the amount borrowed.

"These loans are usually payable on call. As National Banks are forbidden by law to certify checks for a sum greater than the drawer of the checks has on deposit, the practice in such cases is for the broker to execute a promissory note, which note the banker discounts, putting the proceeds to the credit of the broker, and attaching the security to it as it comes in during the day. While this method exposes the banker to some danger of loss in the interval between the certification of checks and the receipts of the securities, such losses seldom occur. There is an unwritten rule of the stock exchange that the bank must be protected at all hazards, both as a matter of personal honor and because the stock brokerage business cannot be carried on otherwise."

Abuses of the Stock Exchange.—The distinction between legitimate speculation in "futures" and gambling on prices is not generally understood and, therefore, to many people both are equally objectionable.

The difference between gambling and selling "short"—the limit of legitimate speculation in futures—is thus clearly pointed out by Mr. T. Henry Dewey, of the New York bar, in a booklet he has recently published.

"Selling Produce 'Short' is selling it for future delivery when the seller does not own the property at the time of the sale, but hopes to be able to buy it at a less price when or before the time for delivery arrives, thus making a profit from a fall in price. The short seller is therefore a speculator.

"In a 'short sale' of stock the contract for future delivery employed is a contract of borrowing. The seller does not, at the time of the sale, own any of the stock sold, but he borrows the same amount of stock from one who does own it and delivers the borrowed stock to the purchaser. The seller must return the stock to the lender and for this purpose he must buy it at some future time. He hopes to be able to buy it at less price than he sold it at and thus make a profit of the difference between the two prices.

"Gambling on prices is betting on the rise and fall in market prices by means of pretended purchases and sales or pretended employment as a broker or commission merchant to make pretended purchases and sales. In other words, it is using the forms of buying or selling, or the forms of employment to buy and sell, where no real buying or selling or real employment is contemplated, the parties agreeing to settle with each other by the mere payment of differences of the prices of pretended purchases and pretended sales.

"Thus it appears that in speculation and in gambling on prices the result depends upon an uncertain future event. The difference is that, in one the parties are engaged in legitimate business beneficial to both of them, while, in the other they are engaged in an idle and useless occupation beneficial only to the party winning and, when carried to excess, injurious to society."

The Practice of Short Selling Sometimes Abused.—That the practice of "short selling," though ordinarily legitimate, is sometimes perverted so as to work an injury to the public is shown by the following extract from a message of Governor Sulzer of New York, sent to the Legislature of that State in January, 1913:

"The subject of so-called 'short sales' is one requiring your serious consideration. A contract to sell property which a man does not own at the time, but with which he can provide himself in time for the performance of his contract, is a general transaction in various branches of business.

"The best views seem to be that short selling in and of itself is not wrongful, but the abuse of this practice works injury to the public.

"Your efforts should therefore be to draw a distinction, so that what will be condemned is the perversion of a legitimate form of business to improper ends."

Exchange is that system of transactions by which debta and credits of persons residing in different places are settled without the actual transference of the money. This is effected by what are known as Bills of Exchange (which see): Thus A in London is creditor to B in New York to the amount of \$5,000; C in London is debtor to D in New York in a like sum. By the operation of the Bill of Exchange the London creditor is paid by the London debtor, and the New York creditor is paid by the New York debtor. This is the principle of Bills of Exchange, and its great convenience is the foundation of exchange itself.

The Course or Rate of Exchange.—That variation above and below par, which is called the course of exchange. results from the same causes that act upon the prices of commodities of every other kind. If bills upon New York be scarce, that is, if New York is but little indebted to London, the London creditor, who wants bills on New York to remit to that city, is obliged to purchase them at a premium; then the course of exchange is above par. If, on the other hand, London owes less to New York than New York owes to London, New York bills will be proportionably plenty, and the exchange with that city necessarily below par. Hence, it is a maxim that, when the course or rate of exchange rises above par, the balance of trade runs against the country whence it rises. When two countries trade together, and each buys of the other exactly to the amount that it sells, their claims will balance each other, if the Exchange be at par. This, however, is of rare occurrence, inasmuch as there must always be a balance owing to the one side or the other. The course of exchange, or the rate at which bills of exchange may be obtained, is affected by variations which may be either real or nominal. They are real when they grow out of circumstances affecting trade; nominal when they arise from any discrepancy in the actual weight or fineness of the coin, from the use of paper currency, etc.

Transactions in foreign exchange are usually conducted by persons known as exchange brokers, who are acquainted with different merchants in various cities at home and abroad. Exchange transactions between different parts of the same country are generally conducted by bankers.



LINCOLN'S EARLY STUDIES OF BUSINESS

#### WORKMEN'S COMPENSATION LAWS FOR PERSONAL INJURY SUSTAINED WHILE WORKING

The United States and most of the States and Territories have enacted laws providing compensation of employees for injury sustained while in the potential formance of their duties.

injury sustained while i. the performance of their duties.

Restrictions are usually made—cases of injury causing disability for more than two weeks or death not due to the employee's intention to injure himself or another or to intoxication.

Casual employees are generally excepted.

Insurance.—Employers, as a general rule, may insure themselves against liability in case of accident to employees, and, in most of the tates, may substitute any approved scheme of benefit system in lieu of the statutory compensation, provided the provided

by the statute.

Elective and Compulsory Laws.—The compensation laws of the several States are either compulsory or elective. Under the elective laws, in force in Alaska, Colorado, Connecticut, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, Pennsylvania, Rhode Island, Vermont, and Wisconsin, the employer may elect whether he will provide and pay compensation according to the provisions of the Act, and thereby relieve himself from liability for the recovery of damages. Compulsory compensation is provided in Arizona, California, Hawaii, Maryland, New York, and Okla-

homa. Elective insurance laws exist in Massachusetts, Nevada, Oregon, Texas, and West Virginia. Compulsory insurance laws have been enacted in Ohio, Washington, and Wyoming.

Compensation for death, for total disability, and for partial disability is provided for by Federal and State statutes as follows:

#### THE UNITED STATES

The Federal Workmen's Compensation Act, approved September 7, 1916, provides that compensation shall be paid by the government for death or disability of employees of the United States resulting from a personal injury sustained while in the performance of duty, at the following rates:

Death Compensation.—\*N. B. No compensation shall be paid where the death takes place more than one year after the cessation of disability, or if there has been no disability preceding death more than one year after the injury, or if death does not result within six years.

(A) To the widow, if there is no child, thirty-five per

centum, until her death or marriage.

(B) To the widower (until his death or marriage), if there is no child, thirty-five per centum if wholly dependent for support upon the deceased employee at the time of her death.

(C) To the widow or widower, if there is a child, the compensation payable under clause (A) or clause (B) and in addition thereto ten per centum for each child, not to exceed a total of sixty-six and two-thirds per centum for such widow or widower and children. If a child has a guardian, other than the surviving widow or widower, the compensation payable on account of such child shall be paid to such guardian. The compensation payable on account of any child shall cease when he dies, marries, or reaches the age of eighteen, or, if over eighteen, and incapable of self-support, becomes capable of self-support.

(D) To the children, if there is no widow or widower, twenty-five per centum for one child and ten per centum additional for each additional child, not to exceed a total of sixty-six and two-thirds per centum, divided among such

children share and share alike.

(E) To the parents where one is wholly dependent and the other is not to any extent, twenty-five per centum; if both are wholly dependent twenty per centum each; if one is or both are partly dependent, a proportionate amount.

(F) To the brothers and sisters, grand parents and grand children, if one is wholly dependent, twenty per centum

<sup>\*</sup>N B calls attention to special disability features.

to such dependent; if more than one are wholly dependent, thirty per centum; if none is wholly dependent, but one or more partly dependent, ten per centum divided among such

dependents share and share alike.

The above percentages shall be paid if there is no widow, widower, child, or dependent parent. If there is a widow, widower, child, or dependent parent, there shall be paid so much of the above percentages, as, when added to the total percentage payable to the widow, widower, children, and dependent parents, will not exceed a total of sixty-six and two-thirds per centum.

(G) The compensation of each beneficiary under clauses (E) and (F) shall be paid for eight years from time of death, unless before that time he, if a parent or grandparent, dies, marries, or ceases to be dependent, or, if a brother, sister, or grandchild, dies, marries, or reaches the age of eighteen, or, if over eighteen and incapable of self-support, becomes capable of self-support. The compensation of a brother, sister, or grandchild under legal age shall be paid to his or her guardian.

In computing the death compensation the monthly pay shall not be considered more than \$100 nor less than \$50.

Total Disability.—A monthly compensation equal to sixty-six and two-thirds per centum of monthly pay, provided that it shall not exceed \$66.67 nor be less than \$33.33, unless the employee's monthly pay is less than \$33, in which case it shall be full amount of monthly pay.

Partial Disability—A monthly compensation equal to sixty-six and two-thirds per centum of the difference between the monthly pay of the employee and his monthly wage-earning capacity after the beginning of such disability. The monthly compensation shall not exceed \$66.67.

Notice Required.—Every injured employee, or some one for him, must within forty-eight hours after the injury give

notice thereof to his immediate superior.

Limited Time for Making Claim.—All original claims for disability must be made within sixty days after injury, and death compensation within one year after the death. For reasonable cause shown the Compensation Commission appointed under the Act may allow disability claim made at any time within one year.

#### ALASKA

Death Compensation.—(a) If married, \$3,000 to widow, \$600 additional to each child under sixteen years of age, and to dependent parent or parents if any; if no widow, \$3,000 to any minor orphans, and \$600 additional to any under sixteen; no total to exceed \$6,000. (b) If married, and dependent parent or parents, \$1,200 to each. (c) If no

dependents, funeral expenses, not to exceed \$150, and other

expenses, if any, to same amount.

Total Disability.—(a) Total permanent, \$3,600 to workman alone; \$1,200 additional if wife is living; \$600 additional for each child under sixteen; total not to exceed \$6,000. If no wife or children, \$600 to each dependent parent. (b) Total temporary disability, fifty per cent. of weekly wages for not over six months.

Partial Permanent Disability.—Fixed sums for specified injuries, varying with conjugal condition and number of

children.

#### ARIZONA

Death Compensation.—(a) To persons wholly dependent, a lump sum equal to 2,400 times one-half the daily wages of deceased employee, but not to exceed \$4,000. (b) If no dependents, the reasonable medical and burial expenses.

Total Disability.—Fifty per cent. of the employee's semimonthly earnings during the time he is unable to work at

any gainful occupation.

Partial Disability.—A semi-monthly payment equal to one-

half the wage decrease.

The total amount of payments for total or partial disability caused by a single injury shall not exceed \$4,000.

#### CALIFORNIA

Death Compensation—(a) To persons wholly dependent, three times the annual earnings of the deceased employee; not less than \$1,000 nor more than \$5,000, payable at least monthly in installments equal to 65 per cent. of the wages. Payments to children cease on reaching the age of eighteen years, unless mentally or physically incapacitated for earning a living. (b) If only partial dependents survive, such proportion of the above as corresponds to the ratio between the earnings of the deceased and his contribution to their support. (c) If no dependents, the reasonable expense of burial, not exceeding \$100.

Disability Compensation.—N. B. Reasonable expenses of medical, surgical and hospital treatment required during the first ninety days after the injury, or longer if the Industrial Commission provided for by the Act so directs.

Total Disability.—For temporary total disability, 65 per

cent. of weekly loss of wages during such disability.

Partial Disability.—For temporary partial disability, 65 per cent. of weekly loss of wages during such disability.

The aggregate amount of benefit for a single injury causing temporary disability is limited to three times the annual earnings of the injured person, with a maximum benefit period of 240 weeks.

Permanent Disability.—For permanent disability, 55 per cent. of average weekly earnings, for periods varying from

40 to 240 weeks, according to the degree of disability. After the expiration of 240 weeks a further benefit varying from 10 to 40 per cent. of the weekly earnings is payable during the remainder of life, when the degree of disability reaches or exceeds 70 per cent.

A lump sum in case of permanent incapacity or death may be substituted for benefits, such lump sum to equal the present value of the benefits computed at 6 per cent.

#### COLORADO

Death Compensation.—(a) To persons wholly dependent. 50 per cent. of the weekly wages for six years, \$8 maximum, total not to exceed \$2,500 nor to be less than \$1,000. If death occurs from any cause during receipt of disability benefits, any unaccrued and unpaid remainder goes to dependents. (b) If only partial dependents survive, 50 per cent. of the weekly wages, \$8 maximum, for such part of six years as the Industrial Commission may determine, total not to exceed \$2,500. If death occurs from any cause during the receipt of disability benefits, partial dependents shall receive not more than four times the amount contributed by the deceased during his last year of employment, the aggregate of disability and death benefits not to exceed \$2,500. (c) If no dependents, \$100 funeral expenses. (d) Payments to widow or dependent widower cease on death or remarriage; to children, on reaching the age of eighteen, unless physically incapacitated from earning.

Disability Compensation.—N. B. Medical and surgical assistance for first thirty days, not more than \$100 in value.

Total Disability.—Fifty per cent. of weekly wages during continuance, \$5 minimum, \$8 maximum; full wages if less than \$5.

Partial Disability.-Fifty per cent. of the weekly wage

decrease, \$8 maximum; total not to exceed \$2,080.

Specified Injuries.—Fifty per cent. of weekly wages for periods ranging from four to two hundred and eight weeks.

Payments may be commuted to a lump sum after six months.

#### CONNECTICUT

Death Compensation.—(a) \$100 for burial expenses. (b) To persons wholly dependent, a weekly compensation equal to one-half the earnings of the deceased employee. (c) If only partial dependents survive, a weekly compensation, determined according to the measure of dependence, not exceeding one-half the earnings of the deceased employee. (d) Compensation shall in no case be more than \$10 or less than \$5 weekly, and shall not continue longer than 312 weeks.

Disability Compensation.—Medical and surgical aid during such time as needed.

Total Disability.—A weekly compensation equal to one-half the employee's earnings, not more than \$10 or less than \$5 weekly, or for longer than 520 weeks.

Partial Disability.—A weekly compensation equal to onehalf of the wage loss, but not more than \$10 per week, or for longer than 312 weeks. For specified injuries causing permanent partial disability, one-half the average weekly earnings for fixed periods in lieu of all other payments.

Lump sum payments may be approved by the Commissioner, provided they equal the value of the compensations.

#### HAWAII

Death Compensation.—(a) Funeral expenses not exceeding \$100 if death occurs within six months after injury. (b) 40 per cent. of average weekly wages to widow or dependent widower alone, 50 per cent. if one or two dependent children, 60 per cent. if three or more; 30 per cent. to one or two orphans, 10 per cent. additional for each child in excess of two, total not to exceed 50 per cent. If no consort or child, but other dependents, 25 to 40 per cent. (c) Payments to widow cease on death or remarriage, and to widower on termination of disability or remarriage; to child on reaching age of sixteen, unless incapable of self-support, when may continue to eighteen; to other beneficiaries, on termination of disability; no payments except to children to continue longer than 312 weeks. Basic wages not less than \$5 nor more than \$36 weekly.

Disability Compensation.—Reasonable surgical, medical and hospital services for first fourteen days, not exceeding \$50.

Total Disability.—60 per cent. of weekly wages, \$3 minimum, \$18 maximum, for not longer than 312 weeks; total not to exceed \$5,000. If wages are less than \$3, full wages will be paid unless disability is permanent, when \$3 will be paid.

Partial Disability.—50 per cent. of wage decrease, \$12 maximum, not over 312 weeks, total not to exceed \$5,000; fixed awards for specified injuries.

Payments may be commuted to one or more lump sums

in any case.

#### ILLINOIS

Death Compensation.—(a) To persons wholly dependent or to lineal heirs to whose support the employee had contributed within four years, a sum equal to four years' earnings, not less than \$1,650 nor more than \$3,500. (b) If only dependent collateral heirs survive, such a percentage of the foregoing sum as the support rendered during the last two years was of the earnings of the deceased. (c) If no dependents, a burial benefit not exceeding \$150.

Disability Compensation.—N. B. Medical and surgical aid for not more than eight weeks nor over \$200 in value.

Total Disability.—Beginning with eighth day (second day of permanent), a weekly sum equal to one-half the employee's earnings, \$6 minimum, \$12 maximum, during disability or until payments equal a death benefit; thereafter, if the disability is permanent, a sum annually equal to 8 per cent. of a death benefit, but not less than \$10 per month.

Permanent Partial Disability.—One-half the loss of earning capacity, not more than \$12 per week nor less than \$6 per week.

Specified Injuries (mutilations, etc.), a benefit of 50 per cent. of weekly wages for fixed periods.

Serious and Permanent Disfigurement.—When not causing incapacity and not otherwise compensated, a sum not exceeding one-fourth the death benefits.

Limitations.—No payments are to extend beyond eight years, except in case of permanent total incapacity.

Lump sum payments for either death or disability may be substituted by the Industrial Board for periodic payments.

#### INDIANA

Death Compensation.—(a) \$100 for funeral expenses, if death from the injury occurs within 300 weeks. (b) 50 per cent. of weekly wages to persons wholly dependent; to those partially dependent, amounts proportionate to deceased employee's contributions to their support; term of payment not longer than 300 weeks from receipt of injury. (c) Payments cease on remarriage of widow or dependent widower, or on children attaining the age of eighteen years, unless mentally or physically disabled for earnings. Wages are to be considered as not above \$24 nor less than \$10 weekly, no total to exceed \$5,000.

Disability Compensation.—N. B. Medical and hospital services for first thirty days and longer at option of employer; employee must accept unless otherwise ordered by the Industrial Board.

Total Disability.—55 per cent, of wages for not more than 500 weeks.

Partial Disability.—50 per cent. of wage loss for not more than 300 weeks.

Specified Injuries.—55 per cent. of wages for designated periods ranging from 15 to 200 weeks.

Wage hasis and total amounts are limited as for death benefits.

Lump Sum Payments.—Any payments may be commuted to a lump sum after twenty-six weeks.

#### 10WA

Death Compensation.—(a) Reasonable expenses of last illness and burial, not to exceed \$100. (b) To persons wholly dependent a weekly payment equal to 50 per cent. of the wages, but not more than \$10 nor less than \$5 per week for 300 weeks. (c) If only partial dependents survive, such a proportion of the above as the amounts contributed by the employee to such partial dependents bear to his annual earnings.

Disability Compensation.—N. B. Reasonable surgical, medical and hospital services and supplies for first two weeks, not exceeding \$100.

Total Temporary Disability.—50 per cent. of wages, not more than \$10 nor less than \$5 (unless wages are less than \$5, then full wages), for not more than 300 weeks.

Total Permanent Disability.—The same compensation as for temporary disability, to be paid for a period of not more than 400 weeks.

Partial Permanent Disability.—For specified mainings, 50 per cent. of average weekly wages for fixed periods.

Lump Sum Payments may be substituted on approval of the court.

#### KANSAS

Death Compensation.—To persons wholly dependent, sum equal to three years' earnings of the deceased employed not less than \$1,200 nor more than \$3,600. For non-resident alien beneficiaries (except in Canada) the maximum is \$750. (b) If only partial dependents survive, a sum proportionate to the injury to such dependents. (c) If no dependents are left, a reasonable expense for medical attendance and burial, not exceeding \$100. Compensation ceases upon the marriage of any dependent, or when a minor, not physically or mentally incapable of wage earning, shall become eighteen years of age.

Total Disability.—For total incapacity, payments during incapacity after the second week, equal to 50 per cent. of earnings, but not less than \$6 nor more than \$15 per week.

Partial Disability.—Payments during incapacity, after the second week, not less than 25 per cent. nor more than 50 per cent. of earnings, not less than \$3 nor more than \$12 per week, except in case of minors earning less than \$10 per week, in which case the compensation shall not be less than 75 per cent. of the earnings. No payments for total or partial disability shall extend over more than eight years.

Lump sum payments, after six months, may be substituted, as agreed upon or determined by the court.

#### LOUISIANA

Death Compensation—(a) \$100 expenses of last sickness and burial. (b) To widow or dependent widower alone, 25 per cent. of weekly wages, 40 per cent. if one child, and 50 per cent. if two or more. If one child alone, 25 per cent., 40 per cent. for two, and 50 per cent. for three or more. For one dependent parent, 25 per cent.; for two, 50 per cent.; if one brother or sister, 25 per cent., and 10 per cent. additional for each other. The total in no case may exceed 50 per cent. of the weekly wages, \$3 minimum payment, \$10 maximum, for not over 300 weeks. Payment to any beneficiary ceases on death or marriage, to children on reaching the age of eighteen, unless mentally or physically incapacitated.

Disability Compensation.—N. B. Reasonable medical, surgical and hospital service, not to exceed \$100 in value.

Total Disability.—50 per cent. of the weekly wages, \$3 minimum, \$10 maximum, for not more than 400 weeks.

Partial Disability.—50 per cent. of the wage loss, not over \$10, for not more than 400 weeks.

Specified Injuries.—Fixed schedule for periods from 10 to 150 weeks.

Lump Payments.—Payments in any case may be commuted to a lump sum on agreement of the parties and approval by the court.

#### MAINE

Death Compensation—(a) To persons wholly dependent, 50 per cent, of weekly wages for 300 weeks, \$4 minimum, \$10 maximum. (b) If only partial dependents survive, amounts proportionate to their degree of dependency, for 300 weeks. (c) If only one wholly dependent and more than one partly dependent person survives, payments are to be divided according to the relative extent of dependency. (d) If no dependents, not above \$200 expenses of last sickness and burial. Payments to children cease at age of eighteen unless mentally or physically incapacitated for earning a living.

Disability Compensation.—N. B. Reasonable medical and hospital services during first two weeks, not over \$30 in value, unless by agreement or order of Commission a larger amount is provided for.

Total Disability.—50 per cent. of the wages for not more than 500 weeks, \$4 minimum, \$10 maximum, total not to exceed \$3,000.

Partial Disability.—50 per cent. of the weekly wage loss, not over \$10, for not more than 300 weeks.

Specified Injuries causing permanent partial disability: 50 per cent. of the wages for various fixed periods, then compensation on basis of wage loss, if any, for not more than 300 weeks in all.

Lump Sum Payments may be approved by the Commission after weekly payments for not less than six months.

#### MARYLAND

Death Compensation.—(a) Funeral expenses not over \$75. (b) To persons wholly dependent, 50 per cent. of the weekly wages for eight years; not more than \$4,250 nor less than \$1,000. (c) To persons partly dependent, 50 per cent. of the weekly wages for such portion of eight years as the Commission may fix, the amount not to exceed \$2,000. (d) If no dependents, funeral expenses only. (e) Payments to widow close on remarriage, and to children on reaching the age of sixteen years, unless mentally or physically incapacitated.

Disability Compensation.—N. B. Medical, surgical, etc., expenses, not above \$150 in value.

Total Disability.—50 per cent. of weekly wages, \$5 minimum, \$12 maximum, for not over eight years; total not to exceed \$5,000. If wages are less than \$5, full wages will be paid.

Partial Disability.—50 per cent. of weekly wage loss, \$12 maximum, total not over \$3,000; specific periods for specified mainings.

Payments may, in the discretion of the Commission, be made in part or in whole in lump sums.

#### **MASSACHUSETTS**

Death Compensation.—(a) To persons wholly dependent, a weekly payment equal to two-thirds the average weekly wages of the deceased employee, but not less than \$4 nor more than \$10, for a period of 500 weeks, the total not to exceed \$4,000. (b) If only partial dependents survive, a sum proportionate to the portion of earnings contributed to their support by the deceased employee. (c) If no dependents, the reasonable expense of last sickness and burial, not to exceed \$200.

Children cease to be dependents at eighteen, unless mentally or physically incapacitated from earning a living.

Disability Compensation.—N. B. Reasonable medical and hospital services, and medicines as needed, for the first two weeks after injury.

Total Disability.—A sum equal to two-thirds the average weekly wages, but not less than \$4 nor more than \$10 per week, not exceeding 500 weeks nor \$4,000 in amount.

Partial Disability.—Two-thirds the wage loss, but not to exceed \$10 per week, and for not longer than 500 weeks.

Specified Injuries (mutilations, etc.).—Two-thirds the weekly wages, not exceeding \$10 nor less than \$4 per week, for fixed periods, in addition to other compensation.

Lump Sum Payments may be substituted in whole or in part, after payments for injury or death have been made for not less than six months.

#### MICHIGAN

Death Compensation—(a) To persons wholly dependent, a weekly payment equal to one-half the earnings, but not less than \$4 nor more than \$10 per week for a period of 300 weeks. (b) If o y partial dependents survive, such proportion of the above as the amount of previous contributions bears to such earnings. (c) If no dependents, the reasonable expense of the las sickness and burial, not exceeding \$200.

Disability ompensation.—N. B. Reasonable medical and hospital services for the first three weeks.

Total Disab.ity.—A weekly payment equal to one-half the earning but not less than \$4 nor more than \$10 per week, nor for period longer than 500 weeks from the date of the injury, and not exceeding \$4,000.

Partial Disability.—A weekly payment equal to one-half the wage loss, but not more than \$10 per week, and for not longer than 300 weeks.

Specified Injuries (mutilations, etc.).—50 per cent. of average weekly earnings for fixed periods.

Lump Sums may be substituted after six months for weekly payments.

#### MINNESOTA

Death Compensation.—(a) \$100 funeral expenses. (b) To a widow lone, 35 per cent. of monthly wages of deceased, increasing to 60 per cent. if four or more children; to a dependent husband alone, 25 per cent.; to a dependent orphan, 40 per cent., with 10 per cent. additional for each additional orphan, with a maximum of 60 per cent.; to the dependent parent or parents, if no dependent widow, widower, or children, 30 per cent. if one parent and 40 per cent. if both survive; if none of the foregoing, but a brother, sister, grandparent, mother-in-law, or father-in-law is wholly dependent, if but one such relative, 25 per cent., or if more than

one, 30 per cent., divided equally. (c) If only partial dependents survive, that proportion of benefits provided for actual dependents which contributions bore to wages carned. (d) When no dependents are left, expense of last sickness and burial not exceeding \$100, in addition to medical and hospital services provided in case of disability.

Payments continue for not move than 300 weeks, and cease when a minor child reaches the age of eighteen, unless physically or mentally incapacitated from earning, and upon the death or marriage of other dependents, tuless otherwise specified.

Disability Compensation.—N. B. Reasonable medical and surgical treatment, not exceeding 90 days nor \$100 in value, unless ordered in exceptional cases, when \$200 is the limit.

Total Disability.-50 per cent. of wages.

Temporary Partial Disability.-50 per cent. of the wage loss.

Specified Injuries (mutilations, etc.).—50 per cent. of the earnings for fixed periods.

Payment for death or disability may not be less than \$6.50 nor more than \$11 per week, unless the wages were less than \$6.50, when the full amount of wages is paid. Payments may not extend beyond 300 weeks, except for permanent total disability, when the maximum is 400 weeks, with payments of not more than \$6.50 per week thereafter for 150 weeks, the total not to exceed \$5,000.

Lump Sums may be substituted for periodical payments, but in case of compensation for death, permanent total disability, or certain mainings, the consent of the court must be obtained.

#### MONTANA

Death Compensation.—(a) \$75 for funeral expenses, if death occurs within six months of injury. (b) To beneficiaries (widow, widower, child or children under 16, or invalid child above 16, 50 per cent. of wages if residents of the United States, if not, 25 per cent., unless otherwise required by treaty. To major dependents (father or mother) in case there are no beneficiaries, 40 per cent. To minor dependents (brothers or sisters actually dependent), if no beneficiary or major dependent, 30 per cent. Non-resident alien dependents receive nothing unless required by treaty, nor do beneficiaries if citizens of a Government excluding citizens of the United States from equal benefits under compensation laws.

Terms of Payment may not exceed 400 weeks, \$10 maximum, \$6 minimum; if wages less than \$6, then full wages.

Payments cease on marriage of widow or widower, or when child, brother or sister reaches the age of sixteen, unless an invalid.

Disability Compensation.—N. B. Medical and hospital services during first two weeks after injury, not over \$50 in value, unless there is a hospital contract.

Total Temporary Disability.—50 per cent. of wages during disability, \$10 maximum, \$6 minimum, unless wages are less than \$6, when full wages will be paid, for not more than 300 weeks.

Total Permanent Disability.—Same scale as above for 400 weeks, then \$5 per week, while disability continues.

Partial Disability.—50 per cent. of the wage loss, wages and benefit not to exceed \$10 nor fall below \$6 in amount, unless wages at time of injury were less than \$6.

Payments to continue not more than 150 weeks for permanent cases, and 50 weeks where disability is temporary.

Maimings.—Compensation of same scale as for total temporary disability for terms ranging from 3 to 200 weeks.

Lump Sums may be substituted for periodic payments in whole or part in any case.

#### NEBRASKA

Death Compensation—(a) In addition to any other benefits, a reasonable amount not exceeding \$100 to cover expenses of last sickness and burial. (b) To persons wholly dependent, 50 per cent. of the employee's wages, but not less than \$5 nor more than \$10 per week, during dependency, but not exceeding 350 weeks; if the wages of the deceased were less than \$5 per week, then full wages are to be paid. (c) If only partial dependents survive, a proportion of the above corresponding to the relation the contribution of the deceased to their support bore to the wages. Compensation to children ceases when they reach the age of sixteen years, unless they are physically or mentally incapacitated from earning.

Disability Compensation.—N. B. Medical and hospital service during the first twenty-one days not exceeding \$200

in value.

Total Disability.—One-half of the weekly wages, but not less than \$5 or more than \$10 per week for 300 weeks; thereafter while disability lasts 40 per cent. of such wages, but not less than \$4 nor more than \$8 per week; provided, however, if weekly wages are less than the minimum, compensation to amount of full wages is to be paid.

Partial Disability.—50 per cent. of loss of earning capacity, but not exceeding \$10 per week, nor exceeding 300 weeks.

Specified Injuries (mutilations, etc.).—50 per cent. of Lages for fixed periods with the same limits as to amounts

as above. Payments begin with the twenty-second day, but if the disability continues eight weeks or longer, compensation is computed from the date of injury.

Lump Sums may be substituted for periodic payments, but if for death or permanent disability, the approval of the court must be obtained.

#### NEVADA

Death Compensation.—(a) Burial expenses not to exceed \$125. (b) To dependent widow or widower alone, 40 per cent. of the average monthly wages; total not to exceed \$4,000; if one or two children, 50 per cent., \$5,000 maximum; if three or more children, 60 per cent., \$6,000 maximum. Payments may not be less than \$20 nor more than \$60 monthly, nor continue more than 100 months. Orphans under sixteen receive sums fixed by the Commission, \$10 minimum, \$35 maximum, for periods fixed by the Commission. Partial dependents receive in proportion to the contributions of the deceased to their support at the time of his death for periods not exceeding 100 months.

Disability Compensation.—N. B. Reasonable medical, surgical and hospital aid for not more than four months.

Total Disability.—An amount equal to one-half the average monthly wages, but not less than \$20 nor more than \$60 for 100 months, the total not to exceed \$5,000.

Partial Disability.—One-half the loss of earning capacity, but not more than \$40 per month for not more than 60 months.

Specified Injuries (mutilations, etc.).—A monthly payment equal to one-half the monthly wages for fixed periods.

Lump Sums may be permitted by the Industrial Commission to be substituted for monthly payments in an amount not exceeding \$5,000.

#### NEW HAMPSHIRE

Death Compensation.—(a) To persons wholly dependent, a sum equal to 150 times the average weekly earnings of the deceased, not to exceed \$3,000. (b) If only partial dependents survive, such proportion of the above compensation as corresponds to the portion of wages contributed to their support. (c) If no dependents are left, expenses of medical care and burial to a reasonable amount, not to exceed \$100.

Total Disability.—A sum beginning with the fifteenth day, not exceeding 50 per cent. of average weekly earnings.

Partial Disability.—A sum not in excess of 50 per cent. of the loss of earning capacity.

Limitations.—In no case is compensation to exceed \$10 a week nor run for a longer period than 300 weeks.

Lump Sums.—The court may determine amount of lump sums payable as a substitute for weekly payments.

#### NEW JERSEY

Death Compensation.—(a) To one dependent, 35 per cent. of the wages of the deceased person, and for each additional dependent, 5 per cent. additional, the total not to exceed 60 per cent., payable for not more than 300 weeks. Compensation not to be less than \$5 nor more than \$10 per week, unless the earnings were less than \$5, when full wages are paid. (b) If no dependents, the expense of the last sickness and of burial, the burial not exceeding \$100. Payments to widows cease on remarriage, and to orphans on reaching the age of eighteen, unless physically or mentally deficient.

Lump Sum Payment.—A discounted lump sum payment may be substituted at the discretion of the Court of Common Pleas.

Disability Compensation.—N. B. Reasonable medical and hospital services for the first two weeks, not exceeding \$50 in value.

Temporary Total Disability.—50 per cent. of wages, payable during disability, but not beyond 300 weeks.

Permanent Total Disability.—50 per cent. of wages during such disability, not beyond 400 weeks.

Specified Injuries (mutilations, etc.).—If producing partial but permanent disabilities, 50 per cent. of wages during fixed periods. All weekly payments are subject to the same rule as to minimum and maximum, as for death benefits.

Lump Sum Payment.—A discounted lump sum payment may be substituted at the discretion of Court of Common Pleas.

### NEW YORK

Death Compensation.—(a) \$100 for funeral expenses. (b) To a widow or dependent widower alone, 30 per cent. of wages of deceased, 10 per cent. additional for each child under eighteen; dependent orphans under eighteen receive 15 per cent. each, and dependent parents, brothers, or sisters, receive 15 per cent. each; aggregate payments in no case to exceed 66% per cent. (c) Payments to widow or widower cease on death, or remarriage, or when dependence of widow ceases, with two years' compensation on remarriage, payments to children, brothers and sisters cease at eighteen, and to parents when dependence ceases. In computing the above benefits no wages in excess of \$100 monthly are considered.

Disability Compensation.—N. B. Medical and surgical treatment and hospital services for 60 days, costs to be approved by the Commission.

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Total Disability.—66% per cent. of wages during continuance of disability.

Partial Disability.-66% per cent. of wage loss.

Specified Permanent, Partial Disabilities (mutilations, etc.).—66% per cent. of wages for fixed periods. Payments in the foregoing cases may not be less than \$5 nor more than \$15 per week, except for certain mainings the maximum may be \$20.

#### OHIO

Death Compensation.—(a) Burial expenses not to exceed \$150. (b) To persons wholly dependent, 66% per cent. of the average weekly earnings for six years after the date of the injury, not less than \$1,500 nor more than \$3,750. (c) If only partial dependents survive, a proportionate sum to continue for all or such portion of the period of six years as the State Industrial Commission in each case may determine, not exceeding a maximum of \$3,750. (d) If no dependents, medical and hospital services not exceeding \$200 in value, and burial expenses not to exceed \$150.

Disability Compensation—N. B. Medical, hospital, etc., services, not to exceed \$200.

Total Temporary Disability.—A weekly payment of 66% per cent. of average weekly wages, during disability, not less than \$5 nor more than \$12 per week, but not for longer than six years, nor exceeding \$3,750.

Total Permanent Disability.—A weekly payment as above continuing until death.

Partial Disability.—66% per cent. of loss of earning capacity during the continuance thereof, but not exceeding \$12 per week or a total of \$3,750.

Specified Injuries.—For mutilations, etc., specified, 66% per cent. of wages for fixed periods, with the same maximum and minimum limitations noted above.

In All Cases if wages are less than prescribed minimum, then total wages are paid as compensation; an expected increase in wages may be given consideration.

#### OKLAHOMA

Death Compensation.—Fatal injuries not covered.

Disability Compensation.—N. B. Necessary medical, surgical, or other treatment for first fifteen days.

Temporary Total Disability 50 per cent. of average weekly wages for not more than 300 weeks.

Permanent Total Disability.-50 per cent. of average weekly wages for not more than 500 weeks.

Permanent Partial Disability.—50 per cent. of wage loss for not more than 300 weeks.

Specified Injuries (mutilations, etc.).—50 per cent. of weekly wages for fixed periods in lieu of other compensation.

Payments may not exceed \$10 per week nor be less than \$6 unless wages were less than \$6, when full wages will be paid.

Lump Sum Payments.—Periodical payments may be commuted to lump sums, and aliens who are non-residents may have payments commuted to lump sums equal to one-half of the value of the present worth.

#### OREGON

Death Compensation.—(a) Burial expenses not to exceed \$100. (b) To widow or invalid widower, a monthly payment of \$30, and to each child under sixteen (daughters eighteen), \$6 a month; the total monthly not to exceed \$50. (c) To orphans under sixteen years of age (daughters eighteen), a monthly payment of \$15 each; the total not to exceed \$50. (d) To other dependents, there being none of the foregoing, a monthly payment to each of 50 per cent. of the average support received during the preceding year, but not to exceed \$30 a month in all. (e) To parents of an unmarried minor, a monthly payment of \$25, until such time as he would have been 21, after which time compensation shall be paid according to (d) above. Payments to widow or widower continue until death or remarriage. On remarriage of widow she receives a lump sum of \$300. Payments to a male child cease at sixteen and to a female at eighteen, unless the child is an invalid.

Disability Compensation.—N. B. Transportation, medical, surgical and hospital expenses not exceeding \$250 in value.

Permanent "otal Disability.—Monthly payments as follows: (1) If unmarried at the time of the injury, \$30; (2) if with wife or invalid husband, but no child under sixteen years, \$35; if the husband is not an invalid, the sum is \$30; (3) if married or a widow or widower with a child or children under sixteen years, \$6 additional to the provision under (2) above, for each child until sixteen years of age, the total monthly payments not to exceed \$50.

Temporary Total Disability.—The above payments apply during disability, increased 50 per cent. for first six months, but in no case to exceed 60 per cent. of monthly wages.

Partial Temporary Disability.—A proportionate amount, corresponding to loss of earning power for not exceeding two years.

Specified Injuries (mutilations, etc.).—Monthly payment of \$25 per month, payable for fixed periods.

A Lump Sum at the option of the injured person is provided in some cases. Partial lump sum payments to any beneficiary may be substituted at the discretion of the Commission.

#### PENNSYLVANIA

Death Compensation.—(a) \$100 funeral expenses. (b) 40 per cent. of weekly wages to widow or dependent widower, 5 per cent. additional for each child, total not to exceed 60 per cent.; if no parent, 25 per cent.; if one or two children, 10 per cent. additional for each child in excess of two, total not to exceed 60 per cent.; if no consort or child under sixteen, but dependent parent, brothers, or sisters, 15 to 25 per cent. of wages. (c) Payments cease on death, remarriage of widow or widower, cessation of dependence of widower or child, brother, or sister attaining the age of sixteen, not to continue beyond 300 weeks, unless for children under sixteen, when 15 per cent. will be paid for each additional child, total not to exceed 50 per cent. Basic wages are not less than \$10 nor more than \$20 weekly.

Disability Compensation.—N. B. Reasonable medical, surgical, and hospital expenses for first fourteen days after disability begins, cost not to exceed \$25, unless major surgical operation is necessary, when \$75 is the maximum.

Total Disability.—50 per cent. of weekly wages for 500 weeks, \$5 minimum, \$10 maximum, total not to exceed \$4,000; if wages less than \$5, full wages will be paid.

Partial Disability.—50 per cent. of weekly wage loss, \$10 maximum, for not over 300 weeks.

Specified Injuries.—\$5 minimum, \$10 maximum for fixed periods; full wages if less than \$5.

#### RHODE ISLAND

Death Compensation—(a) To persons wholly dependent, a weekly payment equal to one-half the average weekly earnings, but not less than \$4 nor more than \$10 per week, for a period of 300 weeks. (b) If only partial dependents survive, a sum proportionate to the amount which the annual contributions bore to the annual earnings of the deceased, for not exceeding 300 weeks. (c) If no dependents, the expense of the last sickness and burial, not exceeding \$200. Payments to children cease on their reaching the age of eighteen years, unless they are physically or mentally incapacitated.

Disability Compensation.—N. B. The necessary medical and surgical care and hospital services for the first two weeks after the injury.

Total Incapacity.—A weekly payment equal to one-half the wages, but not less than \$4 nor more than \$10 per week, during such incapacity, but not for a longer period than 500 weeks.

Partial Incapacity.—A weekly payment equal to one-half the loss of earning power, but not exceeding \$10 per week, during such incapacity, and not for a longer period than 300 weeks.

Specified Injuries (mutilations, etc.).—In addition to the above, one-half the wages, weekly payments to be not less than \$4 nor more than \$10 per week, for fixed periods.

Lump Sum Payments may be substituted by order of the Superior Court after compensation has been paid for six months for either death or injury.

### TEXAS

Death Compensation.—(a) To the legal beneficiary of the deceased employee, a weekly payment equal to 60 per cent. of his wages, not less than \$5 nor more than \$15 for a period of 360 weeks, distributed according to law governing property distribution. (b) If no beneficiaries or creditors are left, the expenses of the last sickness and in addition a funeral benefit not to exceed \$100. (c) If the deceased leaves no beneficiaries but leaves creditors, the insurance association is liable to the creditors for such debts in an amount not exceeding that which would be due beneficiaries.

Disability Compensation.—N. B. Medical and hospital care for the first week.

Total Incapacity.—A compensation equal to 60 per cent. of the average weekly wages, but not less than \$5 nor more than \$15 per week during such disability, but not exceeding a period of 400 weeks.

Partial Incapacity.—A compensation equal to 60 per cent. of the loss of earning power during such disability, but not exceeding 300 weeks, in no case to exceed \$15 per week.

Specified Injuries (mutilations. etc.).—An additional compensation equal to 60 per cent. of the average weekly wages of the injured person for fixed periods, not less than \$5 nor more than \$15 per week.

A lump sum payment may be substituted for weekly payments in cases of death or total permanent disability, subject to the approval of the Industrial Accident Board.

#### VERMONT

Death Compensation.—(a) Seventy-five dollars for funeral expenses if death occurs within two years. (b) 53½ per cent. of weekly wages to dependent widow or widower, 40 per cent. if there be one or two children, and 45 per cent. if more than two; if no parent, 25 per cent. to one or two children, 10 per cent. additional for each child in excess of two, total not to exceed 40 per cent.; if no consort or child under eighteen, and dependent parent, grand parent, or grandchild, 15 to 25 per cent. of wages. (c) Payments to widow cease on death or remarriage, to widower on remarriage or cessation of dependency; to children on reaching age of eighteen, unless incapable of self-support, in no case to exceed 260 weeks or \$3,500 in amount; payments to other classes of beneficiaries end in 208 weeks at most. Basic wages are not less than \$5 nor more than \$25 weekly.

Disability Compensation.—N. B. Medical and hospital services for first fourteen days, not to exceed \$75.

Total Disability.—Fifty per cent. of weekly wages for 26 weeks if temporary, 260 if permanent, subject to extension for 52 weeks, \$3 minimum, \$12.50 maximum, total not to exceed \$4,000. If wages are less than \$3, full wages will be paid unless disability is permanent, when \$3 will be paid.

Partial Disability.—Fifty per cent. of wage decrease, maximum \$10, for not more than five years.

Specified Injuries.—Fifty per cent. of weekly wages, but not more than \$10, for designated periods ranging from eight to 170 weeks.

Lump Sum Payments.—Payments may be commuted to one or more lump sums in any case.

### WASHINGTON

Death Compensation.—(a) Expenses of burial not exceeding \$75. (b) To widow or invalid widower, a monthly payment of \$20; to each child under sixteen, \$5 per month, the total not to exceed \$35. (c) If no parent survives, a monthly payment of \$10 to each child under sixteen years of age, the total not to exceed \$35. (d) To other dependents, if none of the above survive, a monthly payment to each equal to 50 per cent. of the average amount previously contributed to the dependent, the total not to exceed \$20. (e) To the parent or parents of an unmarried minor a monthly payment of \$20 until the time he would have been twenty-one. In case of dependence, payments to parents of minors are governed by (d). Payments to a widow or widower continue until death

or remarriage, and to a child until reaching the age of sixteen years. If a widow remarries she receives a lump sum of \$240.

Permanent Total Disability.—Payments as follows: (1) If unmarried at time of the accident, \$20 per month; (2) if with a wife or invalid husband, but no child under sixteen years of age, \$25 a month; if the husband is not an invalid, \$15 per month; (3) if married, or a widow or widower with a child or children under sixteen years, \$5 a month additional for each child, the total not to exceed \$35.

Total Temporary Disability.—Payments as for permanent total disability during disability, increased by 50 per cent. for first six months, but in no case to exceed 60 per cent. of monthly wages.

Temporary Partial Disability.—The payment as for total disability continues in proportion to the loss of earning power, provided that this shall exceed 5 per cent.

Permanent Partial Disability.—A lump sum not to exceed \$1,500; if the injured person is a minor the parents receive an additional sum equal to 10 per cent. of the award to the injured person.

Lump Sums.—Monthly payments may be converted into lump sum payments in case of death or permanent total disability.

#### WEST VIRGUIL.

Death Compensation.—(a) Reasonable funeral expenses not to exceed \$75. (b) To the widow or invalid widower, \$20 per month and \$5 per month additional for each child under the age of legal employment the otal not to exceed \$35 per month. (c) To orphan child or children, \$10 each per month until the age of fifteen, total not to exceed \$30 per month. (d) To other persons wholly dependent, if no widow, invalid widower, or child under the age of legal employment is lef 50 per cent. of the average monthly support received from the deceased during the preceding year, not exceeding \$20 per month, for six years. (e, "! the deceased was a single minor, to a dependent parent, it per cent. of the earnings, not to exceed \$6 per week, until the time when he would have become twenty-one. (f) If only partial dependents survive, a compensation computed as in (d), with the same maximum.

Payments to a widow or widower cease on remarriage, and to children on reaching the age of fifteen years. If widow or invalid widower remarry within two years of death of employee, to be paid 20 per cent. of balance of ten years' benefits.

Disability Compensation.—N. B. Medical, nurse, and hospital services, not exceeding \$150 (\$300 in special cases).

Temporary Partial Disability.—During such disability, 50 per cent. of loss of his earning capacity, not more than \$10 per week nor exceeding 26 weeks, except that for certain ununited fractures, etc., the period may be 52 weeks.

Permanent Partial Disability.—50 per cent. of wages for periods varying with degree of disability (from 10 to 70 per cent.), periods ranging from 30 to 210 weeks; from 70 to 85 per cent. disability, 40 per cent. of wages for life.

Permanent Total Disability (85 per cent, or above).—50 per cent. of the average weekly wages, during life.

Lump sum payments may be substituted for periodic payments in case of either injury or death. Payments under (c) and (d), \$4 minimum, \$8 maximum.

#### WISCONSIN

Death Compensation.—(a) To persons wholly dependent, a sum equal to four years' earnings, but which when added to any prior compensation for permanent total disability shall not exceed six years' earnings. (b) If only partial dependents survive, a sum not to exceed four times the amount provided for their support during the preceding year. (c) If no dependents, the reasonable expense of burial, not exceeding \$100. All payments are to be made in weekly installments equal to 65 per cent. of the average weekly earnings. Dependence of children ceases at eighteen, unless physically or mentally incapacitated.

Disability Compensation.—N. B. Medical, surgical and hospital treatment for not exceeding ninety days, or the reasonable expenses therefor.

Total Disability.—65 per cent. of average weekly earnings during such disability, but if the injured person requires the assistance of a nurse, then 100 per cent. of earnings for first ninety days of disability.

Partial Disability.—65 per cent, of loss of earning power.

Specific Injuries (mutilations, etc.).—A sum equal to 65 per cent, of average weekly earnings for fixed periods.

Serious Permanent Disfigurement.—A lump sum, not exceeding \$750.

Limitations.—In case of temporary or partial disability the aggregate compensation for a single injury shall not exceed four years' earnings, and for permanent disability six years' earnings, nor may the disability period exceed fifteen years from the date of the accident.

Lump sum payments may be substituted at any one time after six months from the date of injury.

#### WYOMING

Death Compensation—(a) \$50 for funeral expenses, unless other arrangements exist under agreement. (b) Lumpsum payments of \$1,000 to widow or invalid widower, and additional sum, equal to \$60 per year, until the age of sixteen is reached for each child under the age of sixteen, the total for children not to exceed \$1,000. If there are dependent parents and no spouse or child under sixteen, a sum equal to 50 per cent. of one year's contribution, not exceeding \$500.

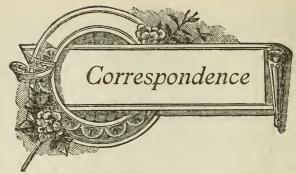
Total Permanent Disability.—Lump sum of \$1,000 if single, \$1,200 if wife or invalid husband, and a sum equal to 60 per cent. for each child under sixteen until age of sixteen is reached, the total for children not to exceed \$1,800.

Temporary Total Disability.—\$15 per month if single, \$20 if married, and \$5 monthly for each child under sixteen, the total monthly payment not to exceed \$35 and the aggregate not to exceed the amount payable if the disability were permanent.

Permanent Partial Disability.—Fixed lump sums for specified injuries, others in proportion.

No provision is made for medical or surgical aid.

Lump Sums.—All payments are lump sums, except for temporary total disability.



Correspondence is the interchange of thought by means of letters.

A large per cent of the world's business is transacted by correspondence, and in these days of rapid transit and cheap transportation friends and relatives become widely scattered and their only means of keeping in touch with one another is through letter writing.

To be able to write a good letter is therefore not only an accomplishment but an important necessity.

It is the opinion of competent judges that a man's habits and qualities as a business man may be fairly estimated from familiarity with his business letters, and his social correspondence is likewise an index to the trend of his thought, and his general character. It is safe to say that the majority do not appreciate the value of the ability to write a good letter.

First in Importance.—Perhaps the matter of first importance in a letter is the expression of the proper ideas in the proper language.

Next to That an easy, graceful style of writing, with words correctly spelled, and sentences properly punctuated. Improper punctuation often renders the meaning unintelligible or the opposite of what was intended altogether.

Classes of Letters.—Letters are usually divided into two general classes: Social and Business.

Social Letters are those that grow out of social and personal relations: as, letters of affection, friendship, congratulation sympathy, introduction, condolence, etc.

Business Letters, as the term implies, are such as are written regarding matters of business of whatever kind.

### BUSINESS CORRESPONDENCE

The Materials.—Good pen, ink and paper. For business correspondence three styles of paper are in general use, viz.: commercial note, about 5x8 inches; packet note, about 5½x8½ inches, and letter paper, which is usually about 8½x11 to 13 inches. The smaller sizes for short letters and the larger for long ones.

The envelopes most commonly used are Nos. 6 and 61.

Parts of a Letter.—For convenience in explaining the form of a letter we call the different parts by the following names:

- 1. Heading (Place and Date).
- 4. Body of Letter.

2. Address.

- 5. Complimentary Closing.
- 3. Salutation.
  6. The Writer's Signature.
  The following diagram will show clearly their position:

Diagram of the Parts of Letters. HEADING ADDRESS SALUTATION BODY OF LETTER MARGINAL LINE PARAGRAPH BODY OF LETTER COMPLIMENTARY CLOSING SIGNATURE

Heading.—The heading indicates where and when the letter was written and should contain information the person written to will need in directing his reply. It should be written to the right hand side of the sheet and about two or two and one-half inches from the top. There is no objection to using two or more lines for the heading if required.

The Address of a letter consists of the name and title of the person or firm to whom you are writing, the residence, or place of business, as the case may be, to which the letter is to be sent.

The inside address, as this may be called, will be the same as the address on the envelope, excepting that on the inside address the city and state may be written on the same line. Begin the address on the left-hand side of the sheet, one inch from the edge of the paper, and on the line following the one on which the heading is written. The second line of the address should begin an inch farther to the right than where the first line is begun.

The Proper Use of Titles.—Two titles of courtesy should not be joined to the same name. as, Mr. John Hartley, Esq; nor should a title of courtesy be used with a professional or official title: as, Mr. J. B. Wilson, M.D., or Hon. Henry Weston, Esq. One exception to this rule, however, is permitted where a clergyman's initials or first name is not known, to write, Rev. Mr. (——), giving only the surname.

The Salutation is the complimentary term used to begin the letter. The forms most in use are Sir; Dear Sir or My Dear Sir. In addressing a firm, Sirs, Dear Sirs, Gentlemen, or My Dear Sirs. If the person addressed be a lady, Madam, or Dear Madam. If she be a young, unmarried lady, Dear Miss, or it is quite correct to omit the salutation where doubt exists as to whether she be married or not, or if the writer has no acquaintance with her.

Follow the salutation with a comma and dash, and never write Gents for Gentlemen, or Dr for Dear, etc.

The Position of the Salutation depends somewhat upon the number of lines in the address. The examples on next page will illustrate this and the form of letters in general.

The Body of the Letter is that part which contains the message or information to be imparted. In this, good form, penmanship, spacing and paragraphing should receive due care.

The body of a business letter should begin on the same line, following the salutation.

### COMMON FAULTS IN WRITING AND SPEAKING CORRECTED.

"I shall walk no further" should be "I shall walk no farther."

"I have no farther use for it" should be "I have no further use for it." Farther refers to distance.

"Is that him?" should be "Is that he?"

"If I was him" should be "If I were he."
"Better than me" should be "Better than I."

"I am very dry" should be "I am very thirsty."
"Both of these men" should be "Both these men."

"He had laid down" should be "He had lain down."
"I have got the book" should be "I have the book."

"If I am not mistaken" should be "If I mistake not."

"It was her who called" should be "It was she who called."
"Lay down or set down" should be "Lie down or sit down."

"When I get off from a car" should be "When I get off a car."

"It spread all over the town" should be "It spread over all the town."

"If I was him I would do it" should be "If I were he I would do it."

"He is down in the basement" should be "He is in the basement."

"I know better; that ain't so" should be "Pardon me, I understand differently."

"I see him every now and then" should be "I see him occasionally."

"I never play if I can help it" should be "I never play if I can avoid it."

"His works are approved of by many" should be "His works are approved by many."

"I went to New York, you know, and when I came back, you see, I commenced attending school," should be "I went to New York, and when I returned I commenced attending school."

"It is me" should be "It is I."

"We enter in" should be "We enter."

"I don't think so" should be "I think not."

"What are the news?" should be "What is the news?"
"He fell on the floor" should be "He fell to the floor."

"He is in under the wall" should be, "He is under the wall."
"Two spoonsful of tea" should be "Two spoonfuls of tea."
"A new pair of boots" should be "A pair of new boots."

"I had rather ride" should be "I would rather ride."

"I only want five dollars" should be "I want only five dollars."

"Continue on in this way" should be "Continue in this way."

"I expected to have seen him" should be "I expected to see him."

#### PARTS OF A LETTER

Jenton se James Farrhami

ringham, Glas Bas Sist. I tak p 364 Torret Gronne; Barbory O. Dh

Largent & Grunlag.

Gentlement. He send you w

The Complimentary Closing follows the body of the letter, on the line below the last line of the letter, and consists of the words of respect or regard used to express the writer's feelings toward the person written to. They are in a sense conventional and are often used without thought as to their meaning. The most common forms in business use are: "Respectfully," "Respectfully yours," "Yours very respectfully," "Yours truly," "Yours very truly," "Yours faithfully," "Sincerely yours," etc. "Gratefully yours" may be used if the writer is under obligation to the one written to, or "Fraternally yours" if a member of the same order or society.

In official letters a more formal style is used: as, "I have the

honor to be, Yours very respectfully."

The complimentary closing should always be consistent with the salutation. For example: to begin a letter with a formal "Sir" and close with "Sincerely yours" would show very bad taste.

Yours truly,

Dienry Joines & Ca,

Respectfully,

Jours respectfully,

Toster, Manning & Co.

Jam.

Yours very respectfully,

The Signature is the name of the writer or the firm or company he represents. It should be written under the complimentary closing and should end just at the right-hand edge of the sheet.

It should be written very plainly. Many writers have a habit of making their signature the most unintelligible part of their letters, presuming that because their name is familiar to themselves it is to everybody else.

A lady writing to persons with whom she is not acquainted should always prefix the title, *Miss* or *Mrs.*, in parenthesis, to her signature.

Folding.—The letter sheet should be folded so as to nearly fill the envelope. To fold a sheet of letter paper to fit the No. 6 or 6½ envelope, turn the bottom of the sheet up to the top, making one fold, then fold equally from the right and from the left, making the letter, when folded, a little narrower than the envelope. If the envelope is held with the left hand, back up, and the letter inserted as folded, all the receiver has to do when he opens the envelope is to withdraw the letter and turn back the folds, and he has it before him right side up. This is important.

Sealing.—Be particular to seal your letter properly, especially if it contains money or other enclosure.

A letter of introduction or recommendation should never be sealed when entrusted to bearer.

The Envelope Address.—The name and title should be written on the center of the envelope lengthwise. When street and number are given, or the direction "In care of Mr.—" they follow on the second line, the city or town on the third, and the state on the fourth or lower right-hand corner of envelope.

The envelope should be placed before the writer with the flap farthest from him, otherwise it will be addressed upside down; and the letter should not be inserted until after the address is written.

More than five million letters and packages reach the dead letter office at Washington every year because they are improperly directed, therefore great care should be exercised in addressing envelopes.

See examples of addressed envelopes.

The envelope used for business purposes should have either written or printed upon its upper left-hand corner the name and address of the sender, with the request to be returned in a certain number of days if not called for.

### ADDRESSED ENVELOPES

If not called for in 10 days return to HERTEL, JENKINS & CO. PUBLISHERS, CHICAGO, ILL.	(MKT)
William Hart, Esy	
398 Grove Avel, Detroi	
	lich!
Messes: Barton & Mil Truesdale, Lineoln	
Sineour	ol.
	MAT?
The Morning Heral	ld,
Box 493.	m, That

Opening Letters.—Letters are properly opened by inserting a knife or other convenient instrument under the flap at the end and cutting across the top of the envelope.

### SOME SPECIAL POINTS IN BUSINESS LETTERS.

- 1. Be brief and to the point without being blunt or offensive.
- 2. Be courteous in your requests and polite in your demands.
- 3. Never write a letter with a lead pencil; always use pen and ink.
  - 4 Avoid the use of flourishes.
  - 5. Blots and errors due to slovenliness are inexcusable.
  - 6. Avoid interlining; rather rewrite your letter.
  - 7. Aim to write as legibly as you know how.
- 8. Never discuss or refer to matters of a social nature in a business letter.
  - 9. Never write a letter when angry or vexed.
  - 10. Write on one side of the sheet only.
- 11. When requesting information always enclose stamp for reply.
- 12. If your letter contains money or an enclosure always state the amount, or what the enclosure is.
- 13. Take a copy of all letters containing matters of importance. It may save you trouble.
- 14. Be prompt in acknowledging the receipt of a business letter, mentioning its date
- 15. Never write an anonymous letter; it is the coward's weapon.
- 16. See that your letters are divided into paragraphs and properly punctuated.
- 17. Write as though your correspondent was at your side and you were talking to him
- 18. Letters ordering goods should state plainly the articles wanted, giving full directions for shipping, and the name and address of the person ordering.
- 19 Money should be remitted by draft, P.O. order, express order or registered letter.
- 20. Money orders or other enclosures should be folded in the letter; not put in the envelope separately.
- 21. Do not use figures in the body of a letter, except to denote sums of money, dates, street or P.O. box numbers.
  - 22. Do not forget to sign your name.

- 23. &c means "and so on in the same manner." Etc. is entirely different and means "and other things." Use them only in their correct sense.
- 24. In requesting payment of money due you, avoid being offensive. Remember, it is better to have a person a friend, than an enemy.
- 25. Do not mix up an order for goods in the body of a letter. Either use a separate sheet, or make it a separate part of your letter with only one style or kind of goods on a line.
- 26. Use care and neatness in addressing your envelope, and if writing a number of letters be sure that John Smith's letter does not go in Tom Brown's envelope.
- 27. Never write a dun, or any matter of importance, on a postal card. To make a threat of any kind on a postal card renders it unmailable, and to use indecent language thereon is a criminal offense, under the laws of the United States.
- 28 A prompt acknowledgment of the receipt of an order for goods is a commendable practice.
  - 29. Avoid abbreviations and the use of postscripts.
- 30. Never write a threatening letter; in most of the States it is made a criminal offense by statute.

#### RULES FOR WRITING A POSTAL.

- 1. A card should be dated either on the upper right-hand corner, or on the lower left-hand corner.
  - 2. Always sign your name in full.
- 3. If you wish an answer, give your full postoffice address, unless it is well known by the person to whom you are writing.
- 4. Never write a demand or a request for money on a postal card. It is disrespectful to the person receiving it.
- 5. Never write an invitation on a postal. Society prescribes polite forms for this purpose
- 6. Do not trust important matters to a postal card, for it is open to inspection, and the law does not provide for its return to the writer if it fails to reach its destination.



### **EXAMPLES OF BUSINESS LETTERS**

### Letter Containing a Remittance

Canton, Ohio, Feb. 10, 1911.

Messrs. Williamson & Caton

Williamsport, Pa.

Gentlemen:—Enclosed please find N. Y. Draft for Sixty-five Dollars (\$65.00), in settlement of your invoice of January 12th, which you will kindly receipt and return.

Yours truly

PETER SCHRADER.

# Letter Acknowledging Above

Williamsport, Pa. Feb. 12, 1911-

Mr. PETER SCHRADER.

Canton, Ohio.

Dear Sir:—Yours of the 10th inst., containing N. Y. Draft for Sixty-five Dollars (\$65.00), came to hand this morning.

We enclose bill properly receipted, and wish to thank you for prompt settlement of your account. Yours respectfully,

WILLIAMSON & CATON.

## Letter Ordering Goods

120 Penn St. Scranton, Pa. May 1. 1911.

Messrs. Geo. M. Hill & Co.,

110 W. Jackson Blvd.,

Chicago. Ill.

Gentlemen:—Please ship by freight over the Penn. Line the following books:

50 Copies Hanly Encyclopedia, Cloth Binding

10 Copies Handy Encyclopedia, Half-Morocco Binding

27 Copies The Business Educator, Cloth Binding

13 Copies The Business Educator, Morocco Binding

10 Copies Bible Symbols, Cloth Binding

Enclosed you will find P. O. money order for Fifty-Seven Dollars (\$57.00) in payment of above. Kindly ship as promptly as possible, and oblige,

Yours for success.

EDWIN LEWIS, Agent

## Calling Attention to Error in Invoice

Hamilton, Ohio, Jan. 27, 1911.

Messrs. Davis & Holt.

Cincinnati, Ohio.

Gentlemen:—I find in checking your invoice dated the 10th inst. for shipment of biscuits that you have overcharged me 15 cents per box on the plain sodas. I herewith return said invoice and ask you to kindly send me a corrected one.

Respectfully,

JAS. DOYLE.

### Letter Acknowledging Order for Goods

110 W. Jackson Blvd., Chicago, Ill., June 3, 1911.

Mr. EDWIN LEWIS.

Scranton, Pa.

Dear Sir:-Your letter of the 1st inst., containing Fifty-seven Dollars (\$57.00) and order for books, has been received.

We are shipping your books via Penn, freight as ordered and trust they will reach you without any unnecessary delay. Bill of lading will be mailed you to-morrow.

Thanking you for the above order, and wishing you the best of success, we are, Yours very truly,

GEO. M. HILL & CO.

## Letter Inclosing Corrected Invoice

Cincinnati, Ohio, Jan. 30, 1911.

Mr. JAS. DOYLE.

Hamilton, Ohio,

Dear Sir:-Your favor of the 27th inst. is at hand, and in reply, we desire to apologize for our error, and herewith enclose you corrected invoice.

Yours truly.

DAVIS & HOLT. Per D.

## Letter Requesting a Loan

Denver, Colo., June 1, 1911.

Mr. FRANK SMITH,

Colorado Springs, Colo.

Dear Sir: -- Much as I dislike the idea of asking any one to be inconvenienced by my circumstances, I am obliged to borrow Twenty-five Dollars until the first of June, and I take the liberty, knowing your confidence in me and your generosity, to ask if you can accommodate me with a loan.

I am sorry to trouble you, but hope you will pardon me if I have trespassed on your kindness.

Believe me,

Gratefully yours. JOHN LONGLEY.

## Giving Notice of Note Coming Due

Burlington, Iowa, March 10, 1911.

Mr. D. E. HOLTZ

Des Moines, Iowa.

Dear Sir:-Your note for Fifty Dollars (\$50.00), dated Sept. 30, 1903, at six months, and made in our favor, will be due and payable at the State National Bank on the 3Cth inst.

Kindly provide for same, and oblige, Yours truly,

KERR & KECK.

### Letter Enclosing Note for Collection

Louisville, Ky., April 5, 1911.

FARMERS' AND MERCHANTS' BANK, Joplin, Mo.

Gentlemen:—We enclose a note for Sixty-five Dollars (\$65.00), drawn by **3**. K. Watson of your town, and due the 30th of this month.

Kindly collect the amount of same, together with six months' interest due, and remit the proceeds to us in Chicago or N. Y. exchange.

Thanking you in advance, we are,

Yours truly, RILEY & RIDNOUR.

# Letter Enclosing Bill of Lading to Bank for Collection

Moline. Miss., April 8, 1911.

FIRST NATIONAL BANK.

Syracuse, N. Y.

Dear Sirs:—We enclose herewith bill of lading to our name endorsed in favor of Mr. John Marten, 10 Beaver St., your city.

Kindly deliver said bill of lading to Mr. Marten upon payment of Forty Dollars (\$40.00) and the cost of remitting the amount to us in N. Y. exchange. Thanking you for your kind attention to the above, we are,

Yours truly,

OXFORD PUB. Co.

### Letter of Resignation

Streator, Ill., June 1, 1911.

Messrs. Hoffman Mfg. Co., City.

Gentlemen:—Having decided to go into business for myself, I am theretore obliged to resign my position and ask to be relieved from my duties the first of June next.

Permit me to say that it is with feelings of regret that I sever my connection with associations that have always been of the most pleasant character.

Yours very respectfully,

ery respectfully,

GEO. W. HARDING.

## Letter Advising Shipment on Commission

Grand Haven, Mich., June 25, 1911.

Messrs. HILL & LERNE,

Commission Merchants,

Chicago, Ill.

Gentlemen:—As per our previous arrangements, I am shipping you to night via Steamer Conger, on consignment,

500 baskets of choice peaches.

Kindly take care of same and dispose of them at the best price obtainable and place the proceeds to the credit of my account. Yours truly,

J. B. Gregg. (Shipper)

## Letter Giving Notice of Traveler's Call

(Printed Letterhead.)

Jan 10, 1911.

Messis. Kingman, Brown & Co.

Boston, Mass.

Gentlemen:—Our representative, Mr. A. K. Parks, expects to call upon you about the first of February with a full line of samples of the latest and best in knitted goods.

We trust you will defer placing your order until you see what we have to offer, as we believe we have exceptional values for the trade this year.

Thanking you for your many past favors, we are,

Respectfully yours.

KENZIE KNITTING MILLS,

J. D. K.

### An Order on a Business House for Goods

Troy, N. Y., June 2, 1911.

Messrs. ARTHUR & COMRIE,

City.

Gentlemen:—Please deliver to the bearer, Mr. Chas Wright, goods that he may select, not exceeding in value Fifty Dollars (\$50.00), which you may charge to our account and mail us invoice for same.

Your kind attention will oblige,

Yours truly.

SCOTT & Co.

# Letter Complaining of Shortage in Goods

Fresno,, Cal., June 10, 1911.

Messis. Harrison Weir & Co.,

59 Lake St., Chicago, Ill.

Gentlemen:—Your shipment of Gold Soap, which left Chicago on the 3rd of April, reached us to-day, and we find same to be ten boxes short.

We return you herewith freight receipt, which does not correspond to the bill of lading or your invoice, and ask you to kindly investigate the cause of the shortage.

Yours very truly,

Peterson Bros.

Per J. D. P.

## Letter Giving Notice of Dissolution of Partnership

Mendota, Ill., April 9, 1911.

We hereby give notice that the partnership heretofore existing and doing business under the firm name of Shaw & Bentley has been this uinth day of April, 1911, dissolved by mutual consent, and Mr. Shaw appointed to collect all outstanding debts and settle all accounts of said firm.

JAS. D. SHAW. C. R. BENTLEY.

The above notice may be either published or addressed to individuals interested in the change.

## Letter Complaining of the Non-Arrival of Goods

Toronto, Can., March 8, 1911.

Messrs. Allen & Lee.

Detroit, Mich.

Gentlemen:—The shipment of Art Goods which you made to us the 15th of last month has not yet arrived. We have been advised by the Customs Department that they are being held for invoice.

Kindly mail copy of Certified Invoice to the Department at Windsor,

and urge them to pass the goods at once, obliging,

Yours truly, ROBERTS & Co.

### Requesting Address of Paper Changed

Concord, N. H., June 2, 1911.

Messrs. Herald Pub. Co., Boston, Mass.

Gentlemen:—Will you please change the address of my "Herald" from 3. K. Good, 79 Palace St., to J. K. Good, 94 York St., Concord, N. H., and oblige?

Yours truly,
J. K. Goop.

## LETTERS REQUESTING SPECIAL FAVORS

A letter making a request of any kind should approach the subject in a direct manner. The nature of the request should be stated at the beginning, and any explanation necessary for making the request should follow, and be brief and to the point.

If necessary to ask for a remittance on an account not yet due, for the privilege of drawing on a prompt paying customer, or for an extension of time on an account or note, special care should be used in wording the request.

The following will serve as examples:

Bellevue, Nich., June 15, 1911.

Messrs. Kingman & Son,

Detroit, Mich.

Gentlemen:—For some time past our business has been tied up to such an extent, on account of circumstances over which we have no control, that we are obliged to ask you if you can favor us with a remittance covering one-half your account. We will be glad to extend the time for the payment of the balance to the 15th of Sept. provided you can accommodate us with your check by the 20th inst.

We anticipate a speedy adjustment of our difficulties, and hope this will be the only time we will be under the necessity of calling on you for your account before due.

Kindly wire your reply at our expense. Thanking you in advance, we are, Respectfully yours,

HENRY MORGAN & Co.

### Asking Note Extended

Red Oak, Iowa, Jan. 10, 1911.

PERRY, HARTMAN & Co.

Des Moines, Iowa.

Dear Sirs:—We find that we will be unable to meet our note for Two Hundred Dollars (\$200.00), due the first of February, and write to enquire if you will kindly extend the time of payment to the first of March. By that time we will be able to meet principal and interest in full.

We are sorry to have to ask this, and if not convenient for you, kindly notify us by return mail so that we may make other arrangements. We trust, however, you can accommodate us, and desire to thank you in advance for the favor.

Yours very respectfully,

JAMES DENNIS & Co.

#### LETTERS OF INTRODUCTION

Letters of Introduction may be either of a social or business nature. The fact that a letter is given is usually considered as an indorsement of the bearer, therefore, in introducing a business acquaintance care should be exercised that the person introduced be one you can safely recommend, and your letter worded so that you will not be obligating yourself further than you intend.

Letters of introduction should not be sealed, as the person introduced has a right to know what the letter contains.

The following will serve as an example:

Dixon, Ill., April 7, 1911.

Mr. J. B. KENNEDY,

15 Spruce St., Louisville, Ky.

Dear Sir:—This will introduce to you my friend, Mr. Harold Rogers, who represents the Gibson Manufacturing Company of Chicago, engine builders, who desire to open a branch office in your city.

Any assistance you may be able to give Mr. Rogers in securing a suitable location will be greatly appreciated by me.

Yours very respectfully, Wm. Sears.

Besides the address of the person or firm to whom the letter is addressed, the envelope should have on the lower left-hand corner the following: Introducing Mr. Harold Rogers.

### Letters of Indorsement

A letter introducing a business acquaintance for the purpose of opening business relations between him and the persons to whom he is introduced is called a letter of *indorsement*. If the person asking such a letter is known to be financially responsible and of good character and business ability, little risk

is assumed; but unless he is known to possess these qualities the letter better not be given.

Letters of indorsement should not be sealed if delivered to the person requesting them.

The following is a safe form:

Muskegon, Mich., June 1, 1911.

Messrs. Edison Electric Co., Kalamazoo, Mich.

Gentlemen:—The bearer, Mr. Robt. West, is preparing to engage in business in Grand Rapids, Mich., and calls on you for the purpose of examining your goods.

Nine years' acquaintance with Mr. West justifies us in stating that he is a gentleman of sterling qualities and business ability, and knowing the field in which he is about to locate, we have no hesitation in saying that you will find it profitable to extend to him every courtesy.

Very truly yours,

ROBT. WALTON & SON.

### Letter Incurring Direct Liability

110 Lincoln St., Rockford, Ill., March 8, 1911.

Messts. Jas. Ray & Co.,

90 State St., Chicago, Ill.

Gentlemen:—This will introduce Mr. R. E. Higgins of our city, who wishes to purchase goods on thirty days' time.

We have known Mr. Higgins for the past fifteen years, and confidently state that he is good for whatever contracts he may make.

You may consider this letter indorsement to the extent of One Thousand Dollars.

Respectfully yours,

COLE & MCKENZIE.

### LETTERS OF RECOMMENDATION.

In giving a letter of recommendation it should always be borne in mind by the writer, that in recommending another, three persons are liable to be affected by it.

If not carefully worded the applicant might be entrusted with duties or responsibilities on the strength of such a letter, that he is totally unfit for, and consequently the employer would suffer loss and be put to inconvenience, the applicant instead of being benefited would be disgraced, and the writer's reputation for good judgment and truthfulness be injured.

If the applicant merits commendation it should never be withheld; but the letter should never overdraw or state more than he is capable of fulfilling.

The letter may be addressed to the person or firm to whom the bearer desires to make application; or it may be written without address, or "To whom it may concern." In either of the latter ways it may then be presented to any one the bearer chooses.

The following are some of the usual forms:

Utica, N. Y., Jan. 26, 1911.

Messts. J. Peterson & Co.,

Hillsboro, Iowa.

Gentlemen:—We take pleasure in stating that Mr. Will Cameron, who has been in our employ for the past three years, as clerk, has by the faithful performance of his work and his manly, upright character, won for himself the respect and confidence of every one connected with our establishment.

We regret that failing health compels him to seek outside employment, and we heartily recommend him as a trustworthy, capable and energetic salesman.

Yours very respectfully,

KENNETH STEVENS Co.

### An Open Letter of Recommendation

Atlanta, Ga., June 20, 1911.

TO WHOM IT MAY CONCERN:-

This is to certify that the bearer, Mr. George J. Bailey, has been in the employ of our company for the past two years, as bookkeeper, and that he has proven himself to be capable, energetic and faithful, a young man of good habits, and fine Christian character, and we heartily recommend him to anyone desiring the services of a competent bookkeeper.

He leaves us to better his position, and carries with him our best wishes for his success.

Respectfully,

CARTER Co.

Per J. C. Carter, Prest.

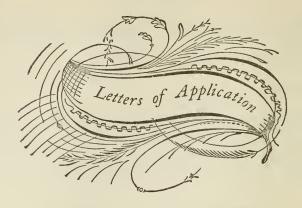
29 Woodward Ave., Cleveland, Ohio, March 10, 1911.

The bearer, Miss Jennie Comrie, has been superintendent of the millinery department of our dry goods house for several years, and we take pleasure in stating that her services have been very satisfactory, and we would be glad to retain her at an advanced salary, but she has decided to go west.

We cheerfully recommend her as being a lady of exceptionally good judgment in her line of work and capable of holding the best class of trade.

Jones & Benedict.





A Letter of Application should be the best specimen of letter the writer can produce, both as to the penmanship and composition. Remember the experienced eye of the business man will readily detect the errors, if any, and not only that, he forms an estimate of your qualities by the letter you write.

The following suggestions may be helpful:

1. Write your letter of application yourself and do not apply for a position you doubt your own ability to fill.

2. Write respectfully, and modestly, frankly stating your qualifications, without boasting.

3. Be sure the form of your letter, the grammar, punctuation, spelling, and use of capitals are correct.

4. Let the writing be neat, the letter free from blots and erasures, even if you have to rewrite it half a dozen times.

5. If making a personal application, and you are asked to write your letter then and there, be prepared. Keep your thoughts collected and put these suggestions into practice.

6. Replying to an advertisement, state when and where the advertisement was seen. Make application for the position advertised, and answer all the requirements.

## Salesman's Application

La Grange, Ill., April 10, 1911.

Messis. Armour & Co.,

Chicago, Ill.

Gentlemen:-Replying to your advertisement in Saturday's "Record-Herald" for a city salesman. I respectfully apply for the position you offer. I have had three years' experience as salesman for a line of goods selling to grocers and butchers, and know the city and the trade thoroughly. All I ask is an opportunity to prove my ability to sell goods.

I respectfully refer you to J. H. Boony & Co., 10 S. Water St., Chicago,

or John D. Mills, 169 Market St., Chicago.

I shall be glad to call on you for a personal interview.

Yours very truly,

L. A. FOSTER.

## Application for Postion as Clerk

Springfield, Ill., June 1, 1911.

MARSHALL & DUNNE,

Glencoe, Ill.

Gentlemen:—Learning through a friend of mine that your business is increasing to such an extent that you require the services of another clerk, I hereby respectfully apply for the position. If I am accepted I will faithfully serve you to the best of my ability, and your interests will be my first consideration.

I shall be glad to furnish testimonials as to my character, ability, etc.

Hoping to hear from you favorably, I am,

Yours very respectfully,
CLINTON MCNEIL.

## LETTERS REQUESTING PAYMENT

The composition of a letter requesting payment of an account is often a perplexing task, particularly if the person or firm is capable of paying, but careless about it. Such a letter, to be perfect, must not only obtain the money due, but do so without giving offense. Such letters should not, as a rule, be blunt or abrupt, but should courteously and clearly state the reasons for the request. If it becomes necessary to suggest placing the account in the hands of a collector, the suggestion should not be put in the form of a threat but in such language as will show your reluctance about using such means. Generally speaking, a statement of the debtor's account is usually all that is necessary to remind him that payment is expected when due.

If necessary to request prompt payment, something like the following may be used:

New York, N. Y., June 1, 1911.

Mr. D. C. GOWAN.

Oswego, N. Y.

Dear Sir:—Inclosed please find statement of your account for April, which we trust you will find correct.

We would appreciate it if you will kindly check same at your earliest convenience and send us a N. Y. Draft for the amount.

Yours truly,

SMITHSON & DEWSNAP.

If the debtor is tardy a second request might be worded as follows:

New York, N. Y., June 20, 1911.

Mr. J. G. HOMER.

Newark, N. J.

Dear Sir:—We respectfully call attention to your account, which is now some time past due, and ask if you cannot favor us with your check by return mail.

or,

Not hearing from you regarding the amount of your account, now past due, we take the liberty of drawing on you at three days' sight, and trust that you will kindly honor the draft when presented.

Thanking you in advance, we are,

Yours truly,

CONNOR & BLAINE.

Concord, N, H., April 1, 1911.

Messrs. Maxwell & Gordon.

Trenton, N. J.

Gentlemen:—The Second National Bank has this morning returned to us our Draft on you, dated March 10th for Fifty-four Dollars (\$54.00) with the explanation, "No attention paid to notice." Since we have given you all the time you asked for the payment of your account, unless some satisfactory explanation is forthcoming you will put us under the necessity of placing your account in the hands of our collector.

Awaiting a prompt reply, we are,

Respectfully.

DAVIS & LAWRENCE.

#### LETTERS OF APOLOGY

He is an unmanly man who has not grace to apologize for inflicting a wrong, knowingly or otherwise.

If you owe an apology, make it promptly. The longer you let it go, the harder it becomes to offer. Failure to pay an account or keep a business engagement may be unavoidable, but neglect to explain matters invariably leaves a bad impression on the one to whom the explanation is due.

# Apology for Failure to Keep a Business Appointment

Akron, Ohio. Jan. 27, 1911.

Mr. J. NORTHCOTT

Columbus, Ohio.

Dear Sir:—I very much regret that I was unable to meet you at the "Conwell House" yesterday as I had expected. Owing to a smash-up on the road, my train was so much behind time it was impossible for me to keep the engagement.

If you will kindly inform me when it will be convenient for you to see me *t* will be glad to arrange my business and meet you on whatever date you may suggest.

Sincerely yours,

WM. J. KING.

## Apology for Failure to Pay an Account

Watertown, S. D., April 4, 1911.

Messrs. Geo. Moore & Co.,

Fargo, N. D.

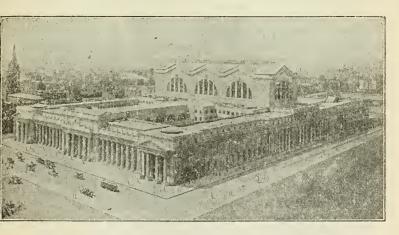
Gentlemen:—We owe you an apology for not having settled our account the first of the month as promised. We have been disappointed in not receiving returns for several large shipments the past month, but expect to be able to settle our account in full not later than the 20th inst.

If you will kindly give us this extension of time we assure you the account will then be paid.

Trusting that we have not put you to any inconvenience, we are,

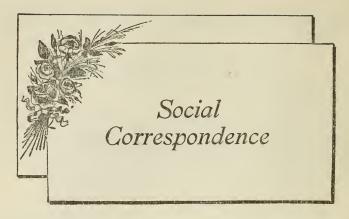
Very respectfully yours,

Conger & Dun.



#### PENNSYLVANIA RAILWAY STATION IN NEW YORK CITY.

This station in the heart of New York City is reached from the New Jersey side through double tracked tunnels under the Hudson River with a daily servic of 400 Pennsylvania trains. It is connected with Long Island by four track tunnels under the East River through which the Long Island Railway operate a daily service of 600 trains.



To be able to write suitable letters of friendship is an accomplishment very much to be desired, and ought to be an aspiration of every one, for while all do not have business letters to write, yet there is scarcely any one who is not called upon at some time to write letters of a social nature.

While many persons write good business letters they may find it necessary to cultivate greater ease of expression in their social letters than the terse style they use at their office desks.

The Paper.—The size and kind of paper will depend somewhat upon the purpose for which it is to be used. Generally speaking, what would be suitable fer business letters would not be for social correspondence, excepting Commercial Note, 5x8 in., which may properly be used for either. This size is the most suitable for gentlemen. Ladies generally prefer Billet, 4x6 in., Octavo Note, 4½x7 in., although other sizes are in use.

Lightly tinted and perfumed paper may be used by ladies, but it is not good taste for gentlemen to use either.

Inks.—Black or blue-black inks are the only colors that should ever be used.

Pens.—Whatever is most suitable to the style of your penmanship.

Envelopes.—Two styles are in general use. One, nearly square, to contain the note sheet folded once, and the other oblong, which contains the note sheet folded twice, once each from top and bottom. These are a little larger each way than the folded sheet. They should be of the same color as the paper.

Parts of a Letter.—Much of what has been said regarding the parts of a business letter applies to the parts of a social letter.

Heading.—Form and position the same as in business letters. Address.—When the address is given in social letters its proper position is at the close of the letter, on the next space below the signature, and commencing at the left-hand side of the sheet at the marginal line. Many social letters written nowadays do not contain any address, the salutation being made to do duty for both, yet the address, placed at the close, imparts a tone of respect to the letter, and may always be added with propriety, especially in writing to our superiors.

Salutation.—What has been said regarding the salutation in business letters applies in social letters. The position of the salutation is the same as the first line of the address in business letters, and the familiarity and warmth of the expression used depends entirely upon our relationship or intimacy with the friend written to, and the subject of our correspondence.

The qualities that combine to make an agreeable associate are required to make a desirable correspondent, and too great familiarity is not one of them.

The circumstances and variety of expressions are so many that we refrain from giving examples.

Body of the Letter.—The body of the letter in social correspondence usually begins to the right of the salutation and on the next line below. Both sides of the sheet may be written on if the letter is more than one page in length.

The Complimentary Closing.—Occupies the same position as in a business letter and should be in keeping with the salutation, and the subject of the letter.

The Signature.—Usually in letters of intimate friendship only the given name is signed. One point in favor of signing the whole name is this: if there is any uncertainty about the letter reaching the person to whom you address it, your name will insure the letter being returned to you in case it is sent to the Dead Letter Office.

#### LETTERS OF AFFECTION

Letters of Affection are such as grow out of our regard for others. They are as different as our relations to others, and may be simply the expression of kindly feeling or of the strongest impulses that move the human heart.

Letters of affection add much to human happiness, and more of them should be written. To that boy away from home, or father, mother, or sister at home, what gladness a good letter brings! Our pleasure in receiving such letters should remind us of our duty to our dear ones in the matter of writing them.

Letters of this class may often be enlivened by playful allusions, jests and familiarities, provided the writer is sure he will not be misunderstood.

The most elegantly composed letter will not bring one-half the pleasure to a far-away relative that a simple letter crowded with feelings of home life and home love will.

Since no form would perhaps fit one case in a hundred we only give the following example, which we consider a model of good-humored playfulness, and without formality, written by Dr. Franklin to his wife:

Easton, Nov. 13, 1756.

MY DEAR CHILD:-

I wrote to you a few days since by a special messenger, and enclosed letters for all our wives and sweethearts, expecting to hear from you by his return, and to have the Northern newspapers and English letters per the packet; but he has just now returned without a scrap for poor me. I had a good mind not to write you by this opportunity, but I never can be ill-natured enough, even when there is the most occasion.

The messenger says he left the letters at your house, and saw you afterwards at Dr. Duche's, and told you when he would go, and that he lodged at Hovey's, next door to you, and yet you did not write; so let Goody Smith give one more just judgment, and say what shall be done with you.

I think I won't tell you that we are all well nor that we expect to return about the middle of the week, nor will I send you a word of news,—that's Poz.

My duty to mother, love to children and to Miss Betsey and Gracy, etc., etc.

I am your loving husband,

BENJAMIN FRANKLIN.

P. S.—I have scratched out the loving words, being written in haste by mistake when I forgot I was angry,

#### LETTERS OF FRIENDSHIP

Letters of Friendship make up that large class of written messages that strengthen the bonds of friends absent from one another. The chief charm of such a letter is its natural, conversational style. It should cause the person reading it to feel as though he had been favored with a pleasant visit, rather than a formal call.

Thus, Bayard Taylor, while in Germany, writes to an intimate friend in America:

"Your letter came four or five days ago, and I take my first leisure to answer it. I take it for granted that this will find you in your Tenth Street rooms, which are so clear in my memory that a letter is more like a personal meeting to me than when you were in Rondout. You somehow manage to bring your own bodily self before me when you write: I see your eyes and the changing expression of your face, as I read, and the sound of your voice accompanies the written words. Thus your letters are most welcome, no matter what you write. \* \* \* "

#### To another:

"You made your short note so pleasant that I can't scold you for its brevity; yet I should like to. There might have been so much more of what may seem personal or domestic 'nothings' to you, yet have such value at this distance. \* \* \* "

Freshness and originality in expression should be cultivated, especially in the opening and closing sentences. Avoid old and time-worn phrases as,

"I thought I would write you letting you know," "I now take my pen in hand," etc.

How refreshing to receive a letter from a friend who begins to talk to us from the first line; for instance,

"It was kind of you to send me a good, long letter while I was lying all alone in my room with nothing to do but take villainous doses of medicine;"

"It was a delight to me to see your hand on an envelope again;"
"I found your letter waiting for me on Monday when my holiday closed."

Compare also such closing sentences as:

- "Having told you all I know or care to write, I will now close;"
- "I must bring my letter to a close, as I have nearly filled the sheet;"

#### with such as

- "Recollect that I am absent and you are at home, so your letters are worth the most;"
- "Remember me very kindly to your brother and my old friends on the hill, and believe me, "Yours very sincerely,

To be perfectly free and unrestrained in familiar letters, forms may be set aside in a pleasing manner, especially in the beginning of a letter. Some of our best authors set us good examples, as:

Boston, Dec. 10, 1840.

Don't, dear Lieber, be offended by my long silence. For the last few days I have been all the time in court. \* \* \*

Ever and ever yours,

CHAS. SUMNER.

(Sumner to Mr. Tower.)

Never, my friend, when the beavens have been dressed in their scorching robes of brass for weeks, was a drop of rain more grateful than your timely epistle. \* \* \*

(Sydney Smith to Lady Grey.)

Dec. 8, 1838.

Awkward times, dear Lady Grey! However, you see those you love sooner than you otherwise would have seen them. \* \* \*

(To Lady Holland.)

If all the friends, dear Lady Holland, who have shared in your kindness and hospitality \* \* \*

Gad's Hill, Oct. 3, 1866.

#### MY DEAR FIELDS:-

I cannot tell you how much I thank you for your kind little letter, which is like a pleasant voice coming across the Atlantic, with that domestic welcome in it which has no substitute on earth. If you knew how strongly I am inclined to allow myself the pleasure of staying at your house, you would look upon me as a kind of ancient Roman (which I trust I am not) for having the courage to say no. But if I gave myself that gratification in the beginning, I could scarcely hope to get on in the hard "reading" life, without offending some kindly disposed and hospitable American friend afterwards; whereas, if I observe my English principle on such occasions, of having no abiding place but a hotel, and stick to it from the first, I may perhaps count on being consistently uncomfortable.

The nightly exertion necessitates meals at odd hours, silence and rest at impossible times of the day, and a general Spartan behavior so utterly inconsistent with my nature, that if you were to give me a happy inch, I should take an ell, and frightfully disappoint you in public. I don't want to do that, if I can help it, so I will be good in spite of myself.

Ever your affectionate friend,

CHARLES DICKENS.

#### LETTERS OF CONGRATULATION

Letters of Congratulation are those written to friends upon any occasion of success, joy, honor, or advancement, or when they have in any way been especially favored. They should only be written when we can heartily enter into the spirit of rejoicing with the one to be congratulated. Nothing but the most natural, hearty and genuine feelings of joy should be expressed in our letter, and that in our happiest way of putting it.

Letters of congratulation are generally brief—sometimes only a telegram—and contain nothing regarding other matters. It depends somewhat upon the occasion, how much may be said in the letter, as, for example, the following written by Charles Sumner to a friend just home after some absence from his family.

Hudson, on the North River, Tuesday Evening, Sept. 28, 1841.

DEAR LIEBER:-

Here I am imprisoned by the rain in the inn of a Yankee village. Longing for companionship, I write to you, and while I write, imagine that I have it—as the ostrich supposes himself free from danger when he has thrust his head in the sand. \* \* \*

I trust you have had fair breezes and this letter will find you with her who loves you so well and with your boys frolicking about you. Ah! my dear Lieber, are you not happy? I know where you live. I wish your home were more according to your heart; but you have sources of the highest happiness—domestic bliss of the rarest kind; constant and honorable employment for your time; a distinguished name; and the consciousness of doing good, of aiding the cause of truth, of education, and government.

I know few persons who have such reasons for blessing God as you. \* \* \*

Ever yours,

CHARLES SUMNER.

## Congratulating a Lady on Her Marriage

St. Paul, Minn., June 19, 1911

MY DEAR EVA:-

It was with heartfelt pleasure that I learned of your marriage to Mr. Howard, and I pray that time may but unite more closely your heart to that of the noble man to whom you have confided your life's happiness.

Hoping I may hear from you soon, and that you will pay me a visit on your return,

I remain your old friend and schoolmate,

EMILY BLANCHARD.

To Mrs. Eva Howard, Washington, Oregon.

## Congratulating a Gentleman on His Marriage

Concord, Mass., June, 9, 1911

MY DEAR MR. ALLEN:-

I hasten to offer you my congratulations and sincere good wishes in regard to your recent happiness. I hope that each day may but add to the domestic joys of yourself and estimable wife. Yours sincerely,

MRS. D. J. WIGHTMAN.

# Congratulating a Friend on the 25th Anniversary of Wedding

Melrose, Fla., June 9, 1911.

MY DEAR MRS. ADAMS:--

If my memory is faithful, it is just twenty-five years to-day since I had the pleasure of congratulating your good husband upon his wedding and tendering to you my sincere good wishes.

Permit me to congratulate you both upon having completed the silver circle, and offer my best wishes that you may long live together and experience as much happiness in the future as your faces prove you have enjoyed in the past. With best regards to yourself and husband, I am,

Your friend,

CHAS. OKER.

## Congratulating a Friend on the Birth of a Son

Vernon, Pa., June 19, 1911.

My DEAR MR. GARDNER:-

Allow me to present to you my most hearty congratulations on the birth of your son, and my sincere hopes that he may prove in very truth a blessing to his parents, and the pride and comfort of their old age. As for the little fellow himself, I could wish him no greater happiness than to be born of such parents and in such a home.

Your friend,

JOHN CULLEN.

### LETTERS OF INTRODUCTION

Like letters introducing acquaintances for business purposes, social letters of introduction should be given only when the person writing them is satisfied that it will be desirable for all parties concerned. Your letter is an endorsement of your friend's character and qualities and if they are not all that might be desired, it reflects on you.

You may speak in complimentary terms of your friend, but not in such a way as to make him feel embarrassed in presenting the letter.

Residents should first call upon a new neighbor unless he brings a letter of introduction. In that case the new-comer may call first. If a stranger sends you a letter of introduction and his or her card, it is your duty to call the next day, or send an invitation to call upon you.

The following are examples of letters of introduction:

Hudson, N. Y., April, 2, 1911.

Mr. H. R. BELDEN.

Boston, Mass.

My Dear Sir:-This will introduce to your acquaintance my friend Mr. Reynolds, for whom I have great esteem, and whom I am sure you will be happy to know.

Any attention you may have in your power to bestow during his visit

to Boston will be gratefully reciprocated by Your friend,

H. S. WHITE.

Newfane, Wis., Dec. 9, 1910.

Mr. T. H. GRIFFIN,

Springfield, Ohio.

Dear Sir:-I take much pleasure in introducing to you my esteemed friend, Miss Clara Harland, a young lady who will spend a few months in your city. I am sure an acquaintance with her will be a pleasure to you.

Any favor you may show her during her stay in your city I shall consider Yours sincerely.

a personal one.

MRS. J. H. HOWARD.

Hartford, Conn., June 6, 1911.

My DEAR MISS JOHNSON:-

My friend, Mr. T. E. Carter, purposing to make his home in your city. I venture upon the kind hospitality you have always extended to me to introduce him to yourself and family. Trusting that the acquaintance will be as pleasant as mine has been with both yourself and him,

I am, very respectfully,

Your friend and well-wisher.

J. F. GLENNON.

## LETTERS OF CONDOLENCE

Letters of condolence are written to express sympathy with those who have suffered loss or bereavement. The task, especially in the latter case, may not be an easy one, for if improperly worded instead of bringing comfort it might only add to the sorrow. The difficulty of the task should not prevent us from performing our duty to the best of our ability.

Let your letter be brief. Show your own sorrow or sympathy

in well chosen words.

Be considerate, and omit mentioning names and the details of the sorrow, as they only open afresh the wounds.

Do not try to point out what might have been if this or that had been done.

Give comfort, or withhold writing. A fine example occurs in the correspondence of Charles Sumner, and part of his beautiful letter to Charlemagne Tower on receiving news of the death of Mr. Tower's father, is here given.

Cambridge, Friday Morning, May 11, 1832.

MY DEAR FRIEND:-

The moment I saw the black seal of your letter, my mind anticipated the sorrowful intelligence k bore. Permit me to join with you in grief. I offer you my sincere sympathies. The loss of a father I can only imagine; may God put far distant the day when that affliction shall come upon mel You have been a faithful son, and I know a joy to his eyes. I reverence the spirit with which you have sacrificed all your professional and literary predilections. You did that for your father's sake, and the thought that you did it on his account must be to you a spring of satisfaction and consolation as hallowed as the grief you feel. \* \* \*

Believe me ever your true friend,
CHARLES SUMNER.

Perhaps no better specimen of a letter of condolence can be found than the following, from the pen of the lamented Lincoln. The original letter adorns the walls of a hall in the College of Brasenose, at Oxford, where it is looked upon with deep interest by American visitors and is treasured by the authorities of the college. It explains itself.

Executive Mansion, Washington, Nov. 21, 1864.

DEAR MADAM:-

I have been shown in the files of the War Department a statement of the Adjutant-General of Massachusette, that you are the mother of five sons who have died gloriously on the field of battle. I feel how weak and fruitless must be any word of mine which should attempt to beguile you from the grief of a loss so overwhelming. But I cannot refrain from tendering to you the consolation that may be found in the thanks of the Republic they died to save. I pray that our Heavenly Father may assuage the anguish of your bereavement, and leave you only the cherished memory of the loved and lost, and the solemn pride that must be yours to have laid so costly a sacrifice upon the altar of freedom.

Yours very sincerely and respectfully,

To Mrs. Bixby,

Boston, Mass.

ABRAHAM LINCOLN.

# To a Friend on Loss of Home by Fire

Albany. N. Y., June 4, 1911.

MY DEAR MRS. HOLMES:-

I have just learned of your loss of last evening, and hasten to offer you my sympathy; for, except loss of life, there can be none greater than that of the home, round which so many pleasant memories cling, and in which we have gathered so many household treasures which no money can replace. I know also what a feeling of desolation must come over you to-day.

Accept my earnest sympathy, and, if I can in any way aid you, do not fail to call upon me.

Yours,

E. A. DEWITT.

## To a Friend on the Death of a Son

Milwaukee, Wis., June 2, 1911.

Mr. EUGENE EAGAN.

Yankton, New York.

My Dear Friend:—It is with deepest sympathy that I write to you, realizing how profound must be the sorrow when he is taken away who, for so many years, has been the comfort and pride of a father's declining life. Still a few more days here, and I trust we will all be united to friends who have been mercifully, no doubt, taken away from us who mourn here below.

I need hardly say that you can now, more than ever, rely upon my aiding you in any way in my power. Your most sincere friend,

CHARLES D'ORSAY.

#### LETTERS OF LOVE AND COURTSHIP

No class of letters consumes so much time and thought, or causes the writer more anxiety than love letters; however, when true affection prompts the message, little guidance will be needed in the composition.

The charm of this correspondence lies in the similarity of tastes, and the tone of earnest affection which is given to the message.

Never indulge in flattery, but remember the first element of lasting affection is respect.

Ladies especially should be careful to preserve their dignity, and guard their future reputations when committing anything to paper.

Secret correspondence should not be indulged in. Liberty from parents or guardians should always be sought first.

We give no samples of love letters. No one would want to receive one written in a copied form. If to be without a copy leaves a fellow to make a fool of himself, better for the other party to find it out early.

## Asking Permission to Call

16 Hawley St., March 15, 1911.

DEAR MISS BREE :-

Presuming somewhat upon our former acquaintance, I hope to be pardoned for this little note, which is to ask permission to correspond with you, and also to have the pleasure of calling on you at your home.

Anxiously awaiting a favorable reply,

I am very truly your friend,

Miss Mary E. Bree,

CHARLES G. VENN.

204 Elm St., City.

# A Favorable Reply

204 Elm St., March 16, 1911.

DEAR SIR:-

Our former acquaintance, though not extensive, has been pleasant, and I do not find it in my heart to object to your kind request.

With pleasure I subscribe myself,

Your sincere friend, MARY E. BREE.

## An Unfavorable Reply

City, March 16.

DEAR SIR:-

Your very kind note has been duly received, and in reply I am permitted to say but this: Although highly flattered by your request, I am not at liberty to grant it.

With sincere regards,

I remain your friend,
MARY E. BREE.

Charles G. Venn, 16 Hawley St.

# From a Gentleman to the Father of a Lady, Requesting Her Hand in Marriage

No. 356 Greenwood Ave., Aurora, Ill., March 25, 1911.

Mr. JOHN FENTON.

Aurora, Ill.

My Dear Sir:—I am certain you will not be surprised when I tell you that, through my frequent visits at your house and your kind hospitality to me, I have learned to regard your daughter with a most sincere affection. Knowing that her welfare and happiness must be the first consideration with you, I hasten to acquaint you with my feelings.

I am, as you are aware, not lacking in this world's goods; and, if an honest and sincere affection can secure her happiness, these certainly shall not be wanting. Will you trust her to me? I anxiously await your answer.

Very respectfully,

CLARENCE SHAW.

# FACTS AND FIGURES IN FINANCE

In 1917, as a war measure, the United States Government assumed control of the railway systems, and placed the business of operating them in the hands of a commission appointed for that purpose.

The roads were returned to their owners January 1, 1920,

April 18, 1920, Congressman Goode of Iowa, chairman of the house committee on appropriations, presented a report accompanying an emergency deficiency bill appropriating a total of \$309,177,161, of which \$300,000,000 was for winding up the expenses of the commission. Director General Hines of the commission had asked for \$420,000,000. The bill was passed April 20th.

The report showed that the federal railroad administration held at that time \$862,000,000 in railroad securities, representing loans made to the roads and Liberty bonds and Victory notes totaling \$88,459,322.

The total loss to the government growing out of federal control of the railroads was estimated in the report at \$1,129,000,000.

#### PRODUCTION AND VALUE OF TOBACCO.

In 1906 the Cripple Creek gold field yielded \$14,253,000 worth of the precious yellow metal. That year all of the state of Colorado yielded \$23,210,629 in gold. The 1919 crop of tobacco in the "burley district" of Kentucky brought \$75,000,000, more than five times as much as the Cripple Creek gold field yielded in one of its bonanza years and within \$14,000,000 of as much as the value of all the gold mines in the United States in 1918.

In addition to leading the world in the production of leaf tobacco, the United States supplies the international market with almost half its supply. The following table shows, by countries, our exports of unmanufactured domestic tobacco for the last ten years. Stems and trimmings are included. It will be seen that although the war resulted in great irregularities in our exports to the various countries, and, although some of our best customers were largely cut off, our export trade in tobacco did not ultimately suffer, high exports in 1919 offsetting the decline in 1918:

Cor	untry 1	910-14	1915	1916	1917	1918	1919
(5 yr. aver.) (In millions of pounds)							
United E	Kingdom	140	189	151	123	89	277
France .		43	38	83	71	73	97
Italy		42	24	41	46	39	61
Germany		38	10				
Netherla	nds	27	21	57	55	1	14
Spain		20	*	10	11	18	26
Canada		15	16	19	15	18	23
Australia		14	9	10	16	6	18
China		7	3	9	10	8	15
	W. Africa	6	4	7	10	8	10
Other co	untries	42	35	58	57	31	89
То	tal	394	349	445	414	291	630

## INDIANS IN THE UNITED STATES

The Indian bureau in 1919 reported 333,702 red men in this country, and a statistician of the bureau, Dr. Lawrence W. White, doubts if there were ever more than that number within the boundaries of what is now the United States. He calls attention to the enormous area required to support a hunting population, and points out that the Indians have increased more than 20,000 since the first reliable census of them was taken in 1870. Though not a large gain, it is enough to show that our Indians are not dying out. Physically speaking, the North American Indian was and is one of the world's finest races. His place in athletics is proof of that—there are as many notable red athletes in this country as can be shown by any white population five or ten times as numerous. The chief enemies of the Indian have been tuberculosis and whisky. The last is no longer much of a menace, and while he has not developed an immunity to the first, he is better protected from that and other contagious ailments than ever before.

# HOW GOLD IS SHIPPED

When the prevailing rate of exchange is unusually high, international trade balances are usually adjusted by shipping

gold instead of by purchasing bills of exchange.

Immediately after hostilities ceased in 1918, in fact for some time before that, the flow of gold came from Europe to the United States. During the same time, there had been a small but steady flow of gold from the United States to South America. Shipments of \$17,000,000 in American gold to Buenos Aires, in July, 1919, brought the dollar exchange in Argentina up to par for the first time since the United States joined the Allies.

Though gold shipments are a frequent and commonplace occurrence, not everyone knows precisely what the process is

or what the items are that contribute to its cost.

The first thing you must do is to get your gold. The usual procedure is to apply to the sub-treasury and engage the requisite amount for a certain date. You may get it at par or you may have to pay a premium. As a result of the war American bank vaults contain one-third of the world's total supply of gold money, which is estimated at something like \$9,570,000,000. In these circumstances there is no premium to pay.

The gold having been obtained it must be packed for shipment. Strong casks are used for this purpose, and \$50,000, no more, no less, must be put into each. Sometimes very stout, rather flat wooden boxes are used, but the usual prefer-

ence is for casks.

When your gold is ready to be hauled to the steamship dock you do not summon the nearest local expressman, but a particular truckman who makes a specialty of transporting this sort of cargo. He will charge you at the rate of a dollar and fifty cents for every thousand dollars' worth of specie he handles. This brings his bill up to seventy-five dollars for each little keg, which you could hold under your arm if your arm were strong enough. There is some difference in responsibility between hauling kegs of nails and kegs of golden eagles, and you must be prepared to pay accordingly.

If you have a grain of prudence you will insure your shipment. This item is rather smaller than the one for cartage. Now that there are no U-boats roaming the seas the cost of insurance will scarcely exceed one-tenth of one per cent.

The Cost.—One of the largest international bankers in the country furnishes the following list of expenses based on a shipment of \$100,000 consigned to ports in Western Europe:

Cartage\$1	50.00
Insurance, at a dollar a thousand	.00.00
Cooperage, 2 casks at \$3.50	7.00
Freight 2	50.00
Interest, 10 days at 6 per cent 1	.66.67

Total cost of shipping \$100,000.....\$673.67

These figures are high rather than low because they are based on a small shipment. Ship one or more millions at once and some of the items will be materially shaded.

From these figures it will be seen that if exchange prices run much more than two-thirds of one per cent above normal, gold shipment is the cheapest way to pay foreign debts.

In ordinary times the price of foreign exchange is quoted in the finest print in an obscure corner of the financial page; but when European exchange drops to extraordinarily low levels, it has qualified for a place of honor in the regular news columns—partly for its own sake, but largely because of its importance as an index to European financial conditions and our own export trade.

About the middle of July, 1919, sterling exchange broke overnight from \$4.31 to \$4.2625. The normal rate is in the neighborhood of \$4.87. It used to be reckoned with reasonable accuracy that a dollar equaled five francs, but on the day that pounds sterling registered the sharp decline above noted a dollar would buy a check on Paris for seven francs, twenty-one centimes. Of course these rates are reciprocal. That is to say, on the day in question a pound taken to a banker in London, would buy a draft on New York for only about \$4.26 instead of \$4.87.

At any other time European countries would maintain the parity of exchange by the exportation of gold; but since they have no more gold than suffices for a hand-to-mouth existence that remedy is no longer available.

#### INDUSTRIAL WEALTH AND NATIONAL DEBT

Our National Wealth doubled in the eight years next following 1912. The growth was made in bewildering circumstances, but it was definite. Raleigh S. Rife of the Guaranty Trust Company (New York) is next to Frank Vanderlip, the best posted bond man. Mr. Rife, speaking at the close of 1919, said that from the standpoint of material wealth we were in a much stronger position than at the outbreak of the war. Our national wealth as measured in dollars in 1912 was \$187,000,000,000. "Allowing for normal growth and the extraordinary growth of wealth during the war period, and allowing for a reasonable recapitalization of our wealth in accordance with the level of prices, our wealth would be represented by an approximate total monetary value of \$325,000,000,000."

This amount credited among the 103,500,000 persons now stated by the Census Bureau to constitute our population, would give each \$314.10.

Our National Debt.—At the end of the fiscal year 1912 the national debt of the United States was \$1,040,000,000, or \$10.40 per capita in a population numbering 100,000,000. A treasury bulletin published September 4, 1919, gave it as \$26,596,701,648, a slight fraction over \$257.12 per capita in a population of 103,500,000.

Our Stock of Cash.—August, 1914, the general stock of money in the United States, including money held in the treasury and by the Federal Reserve Banks as well as money in circulation, was \$3,786,000,000; rating \$36.60 per capita. By August, 1919, this had increased to \$7,781,000,000, rating \$75.18 per capita.

In the same five years, bank credits had increased from \$20,924,000,000 to \$22,316,000,000. The number of bank-ruptcies and bank failures during that time was far below any similar term of years since the panic of 1907-8. Or (excepting panic years) since the civil war.

January 1, 1920, the wealth-account of an individual in

our population (stating wealth in terms of money, which in itself is not wealth) would stand thus:

Dr.	Cr.
National debt\$257.12	National wealth\$314.10
Cash 36.60	
\$293.72	

By which showing, each individual in the United States stands creditor to his country in the sum of \$20.38.

#### INCREASE OF SOUTHERN WEALTH

An increase of more than \$1,000,000,000 in crop production was made by states of the lower Mississippi valley in the ten years next following 1910, according to estimates by the Southern Alluvial Land association of Memphis. The development was attributed to the reclamation and cultivation of thousands of acres of low lands, and to the fact that farmers were getting away from a one-crop system, producing general farm crops and live stock in addition to cotton.

The greatest growth in farm wealth was shown by Arkansas, which was credited with a gain of more than 700 per cent in ten years. In 1910 the crop wealth of Arkansas was \$59,119,000, according to government estimates. In 1919 it reached about \$400,000,000.

Crop production in Mississippi in 1920 reached about the same figure (\$400,000,000), whereas it was but \$84,000,000 in 1910.

Tennessee gained from \$70,000,000 in 1910 to \$335,000,000 in 1919, or almost 500 per cent in ten years. Higher prices for farm crops than in previous years are considered in estimating the gain.

It is only since 1910 that there has been a large crop production in the onetime overflowed areas of Arkansas, Louisiana and Mississippi. The assistance given by the federal government in building levees to end overflows by the Mississippi river, and the development of drainage on a big scale had by that year made possible the reclamation and cultivation of idle lands which now are producing the added crop wealth of those states.

The lower valley formerly shipped more than 100,000 head of hogs a year to outside markets, whereas the one

state of Mississippi last year shipped nearly \$5,000,000 worth of hogs to market.

To inroads of the cotton boll weevil a few years ago is attributed the rapid change from the one-crop system to the diversified system now being practiced. Farmers no longer depend wholly upon their cotton, but back it with general farm crops.

The tide of immigration after 1910 shifted from the west and northwest to the south, with a very noticeable flow into the lower Mississippi valley.

#### SHIPPING LOSSES OF THE WAR

According to careful estimates made by the Federal Bureau of Navigation 4,021,500 tons of shipping at a current value of \$450,000,000, were destroyed by the Central powers in the first twenty-nine months of the war up to January 1, 1917. Of this total 3,069,000 tons were British, or nearly 15 per cent of the total British tonnage at the outbreak of the war.

During the same period the naval forces of the Central powers, principally through submarine offense, destroyed as prizes 401 neutral ships of 537,500 tons gross because of their transportation of contraband. December losses were the heaviest of the year, 152 merchant ships of a total of 329,000 gross tons being lost. Of this tonnage 240,000 was British. Sixty-five neutral ships of 86,500 tons gross were sunk, bringing the month's grand total for hostile and neutral bottoms to 415,500 tons gross.

Total losses of the principal nations, exclusive of the Central powers, were:

	Stea	m and sail-	Gro	Gross tons	
	in	g vessels	ofs	of sail and	
	owned accord-		ste	steam ves-	
,	ing to Lloyd's		sels o	sels destroyed	
	Register book		ir	in war	
	1915-1916		(28 m	(28 months)	
Flag.	No.	Tons	No.	Tons	
United Kingdom	9,285	19,541,364	1,100	3,069,000	
British Colonies	2,068	1,732,700	2	7,928	
*United States .	2,530	3,622,913	17	33,082	
Danish	835	854,966	. 75	81,592	
Dutch	809	1,522,547	70	132,375	

French	2,285,728	137	325,464
Italian1,177	1,736,545	125	282,524
Japanese	1,826,029	6	22,539
Norwegian2,174	2,529,188	289	339,970
Russian1,256	1,054,762	57	79,717
Spanish 642	899,204	18	41,463
Swedish	1,122,883	83	74,705

<sup>\*</sup>Excludes vessels on great lakes.

These losses approximate more than twice the amount of tonnage under contract in American yards, which official reports show are contracted ahead for more than two years. The loss to the world's merchant shipping in 1916 through

war causes exceeded the total tonnage constructed.

German losses of shipping from July, 1914, to January, 1917, are placed at 409 ships, of which 102 were destroyed and 257 captured and used by the Allies. The German tonage loss is said to have been 1,266,000 tons out of a total of 5,200,000 tons possessed before the war.

Germany has constructed 1,577,000 tons of new shipping since the war began, which is more than enough to compensate her for her losses. She is said to be building one ship of 56,000 tons, two of 35,000 tons each, and twenty-four of from 9,000 to 13,000 tons each.

German Ships Interned in U. S. Ports.—The total value of German and Austrian ships interned in ports of the United States is placed at \$40,000,000, thirty-one of which vessels, valued at \$28,000,000, are laid up in the port of New York, and sixty-eight are flying the flags of the Central powers in other ports of the United States and outlying possessions. These sixty-eight vessels comprise a total of 363,041 gross tons and are valued at \$11,500,000.

#### WAR LOANS IN THE UNITED STATES.

American investment in foreign government loans or commercial credits due to the war amount to \$2,350,000,000, of which about half is to Great Britain or British banks.

The largest single issue was \$500,000,000, loan to Great Britain and France jointly, of which half may be considered as British. Next was the \$300,000,000 British collateral loan due in 1919 and 1921.

France is the next largest borrower. In addition to the French proportion of \$250,000,000 in the joint loan there is \$100,000,000 collateral loan of 1919 and \$140,000,000 in commercial credits. A total of \$86,000,000 has been obtained by the cities of Paris, Lyons, Bordeaux and Marseilles.

Russian borrowings have reached \$75,000,000, Italian \$25,-000,000 and German direct obligations \$10,000,000. British and Russian advances marked as floating debt, aggregate about

\$150,000,000 additional.



Resolutions are the expressed opinion of bodies such as councils, societies, committees, or any organization on any matter they may have had under consideration.

Resolutions in form should be prefaced with a preamble, which should state the reason or occasion of the statements that follow, and should bear the signature of the committee framing them.

#### FORMS OF RESOLUTIONS

#### Retirement of an Officer

WHEREAS, Our esteemed friend and fellow citizen is, on account of bodily infirmities, compelled to resign as president of our organization; and

WHERE II, He has for many years filled the office from which he now retires, with great acceptability and universal satisfaction, therefore,

Resolved, That we hereby express to him our sincere thanks for his untiring labors in behalf of our organization and of the public interest, and assure him of our earnest wish that he may enjoy the happiness of a peaceful and serene old age.

Resolved, That a copy of these resolutions, properly engrossed, be presented to him as a mark of our esteem.

#### Resolution of Thanks

Resolved, That an expression of our appreciation be hereby given to our esteemed chairman, who has presided over the deliberations of this body with impartiality, dignity and marked ability, as well as to the other officers for the faithful performance of duties.

We recommend, That suitable resolutions be drafted by a committee of five appointed by the chair.

## Resolution of Sympathy

Whereas. It has pleased the Almighty to remove from our midst, by death, our esteemed friend and co-laborer, K. C. Chapman, who has for many years occupied a prominent rank in our midst, maintaining under all circumstances a character untarnished, and a reputation above reproach.

Therefore, Resolved, That in the death of Mr. Chapman we have sustained the loss of a friend whose fellowship it was an honor and a pleasure to enjoy; that we bear willing testimony to his many virtues, to his unquestioned probity and stainless life; that we offer to his bereaved family and mourning friends, over whom sorrow has hung her sable mantle, our heartfelt condolence, and pray that Infinite Goodness may bring speedy relief to their burdened hearts and inspire them with the consolations that Hope in futurity and Faith in God give even in the Shadow of the Tomb.

Resolved, That a copy of these resolutions, properly engrossed, be presented to the family of our deceased friend.

Committee:

R. K. COLLINS, A. WESTLAND,

J. K. ARTHUR, President. HARRY STONE, Secretary,

J. Anderson,

## PETITION FOR LAYING OUT A ROAD

To the Commissioners of the Town of Plainfield, County of Will, State of Illinois.

Your petitioners, of the town of Plainfield, would respectfully represent that the public convenience and wants require that a road and highway should be taid out and constructed beginning at the northeast corner of George E. Smith's farm, in the town of Plainfield, and leading in a direct line south to the town of Lockport.

Your petitioners would therefore ask that your honors would view the premises and locate and construct said road and highway, according to the laws in such cases made and provided, as shown by the statutes of the State.

Signatures.

Signatures.

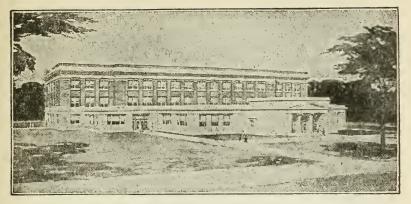
## PETITION FOR CHANGING A ROAD

To the Commissioners for the County of .....

The undersigned respectfully represent that the public road and highway from the house of J. H. Nolan, in the town of Oswego, passing the house of G. H. Faust, to the house of Charles Peterson, in the town of Oswego, is indirect, inconvenient and out of the way; wherefore, your petitioners request your honorable body to view the premises, straighten or new locate such road, and discontinue such parts of the present highway as may be useless, or make such alterations or improvements as shall appear to your honors necessary.

Signatures.

Signatures.



MODERN SCHOOL BUILDING

## PUBLIC SCHOOLS

Laws Governing the Rights and Duties of Directors, Teachers, Pupils and Parents

School Management.—In most of the States the management of the public or common schools is placed by statute under the exclusive control of directors, trustees, committees, or boards of education.

School Books and Course of Instruction —Where the management has thus been placed under the exclusive control of the directors, they have the right to determine what books shall be used and what instruction shall be given in the schools.

Separate Schools.—Where the legislature of a State confers upon boards of education the power to establish separate schools for white and colored children, this may be done without violating the fourteenth amendment to the constitution of the United States. And where under such statutory provisions appropriate schools for colored children are maintained, such children may be lawfully excluded from schools established for white children.

But unless expressly conferred by statute upon boards of education, the power to establish separate schools does not exist.

The courts will compel the trustees to admit colored children to the public schools where separate schools are not provided for them. Employment of Teachers.—By statute in all the States the authority to employ teachers for the public schools is conferred upon school boards, directors, trustees, and committees.

Certificates of mental and moral qualifications are required of teachers in most of the States.

In some States these certificates are given by a board of examiners and in others by the county superintendent of schools.

Tenures and Salaries.—As a general rule teachers are employed for a year only at a time, but sometimes the teacher is first selected for one year, then, if reëlected, for two years, then for four, and then for good behavior This is the practice in Cincinnati, Ohio.

The Salary of a public school teacher is not attachable by trustee process while in the hands of city officials whose duty it is to pay it.

Terminating Teacher's Contract.—The contract made with a teacher for a period extending beyond the trustees' term of office is valid and binding on their successors in office.

School directors cannot terminate a contract with a teacher by doing away with the particular school in which he is engaged in teaching.

Dismissal of Teachers —No teacher holding a proper certificate can be dismissed without sufficient cause. Unfaithfulness, incompetency, and inability to properly govern the school, are held to be, either separately or combined, sufficient cause for dismissal.

If dismissed without sufficient cause, the teacher's remedy is the same as for breach of any other contract.

If unwarrantably interfered with or obstructed in the discharge of his duties by the directors, the teacher has his remedy in an action for damages.

Janitor Work cannot be required of a teacher, unless it is so specified in the contract.

Closing School.—When the school is closed by the district officers on account of the prevalence of a contagious disease, and the teacher stands ready to perform his contract, he is entitled to full salary during the time school is closed.

Legal Holidays.—It has been held by the courts that in the absence of statutory requisitions a school should be allowed the legal holidays without deduction of salary to the teachers.

Teachers May Expel or suspend pupils for sufficient cause, as

for breach of discipline, refusal to take part in exercises, refusal on part of the parents to sign and return periodical written reports of the pupil's standing, father's refusal to permit the teacher to whip the child or to correct him himself, refusal to study certain branches from which the parents of the child have requested that it might be excused, or misbehavior outside of the school tending to injure the school and subvert the teacher's authority. A teacher or director can change the regular school hours only where reason requires it.

# Corporal Punishment

The Teacher Stands in Place of the Parent, and while a pupil is under his care, has the same authority as the parent has at home of correcting him by confinement or whipping.

Assaults by Teacher.—Although the teacher has a right to punish his pupils for misbehavior, he will be liable to prosecution for assault if he inflict such punishment as produces or threatens lasting mischief, or if he inflict punishment, not in the honest performance of duty, but under the pretext of duty.

Presumptions in Favor of Teacher.—The teacher has in his favor the presumption that he has done his duty, in addition to the general presumption of innocence, and in determining the reasonableness of the punishment, the judgment of the teacher as to what was required by the situation should have weight, as in the case of a parent under similar circumstances.

Pupils Over Twenty-one years of age who voluntarily attend school, thereby waive any privilege which their age confers, and may be punished as any other pupils.

Indecent Liberties taken by a schoolmaster with a female pupil, without her consent, though she does not resist, constitute an assault.

Parents Should Uphold the Teachers in maintaining school discipline, for upon this the welfare not only of the school but that of the pupils themselves depends. Where a teacher is sure of the parent's aid in the proper correcting of a child, corporal punishment at school is very seldom resorted to or required.

Value of Corporal Punishment.—The right and occasional necessity of corporal punishment being conceded, the question remains: Of what use is it?

"I am confident," says Addison, "that no boy who will not be allured by letters without blows, will ever be brought to anything with them." The following incident may serve as an aid to the proper solution of the question:

"I dunno how 'tis, sir," said an old English laborer to his clergyman, in reply to a question respecting the bad behavior of his children, "I dunno how 'tis; I beats 'em till they're black and blue, and when they won't kneel down to pray I knocks 'em down, and yet they ain't good."

# WILLS

## RULES FOR WRITING A WILL

A will is a legal statement of the disposition a person wishes to have made of his property after his death.

The person making the will, if a man, is called a testator; if a woman, testatrix. An executor is one appointed by the will to carry out its provisions and settle the estate. The feminine form of the word is executrix. An administrator is a person appointed by the proper court to settle the estate when there is no will.

How a Will Should be Drawn.—No exact form of words is required to make a will good at law; the provisions of a will should, however, be stated so plainly that its language may not be misunderstood, and care should be taken to comply with the provisions of the statute of the State where the will is made as regards attestation and execution.

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The name, age and residence of the testator should be distinctly stated at the beginning of a will.

A will should contain a clause describing the instrument as the *last* will of the testator (as, "I hereby revoke all former wills made by me at any time"), as the mere making of a subsequent will does not revoke a former one entirely, but only so far as the last made may conflict with the earlier one.

Disposition of Real Estate.—When there are different parcels of real estate it should be specifically described, as in a deed; but where it all goes to one person a general devise, as "I bequeath all my real estate to ——," is admissible.

Personal Property bequeathed should be so described as to render identification practicable.

Property located in another State must be bequeathed in accordance with the laws of that State.

Witnesses.—Great care should be exercised in the selection of witnesses. They should, if possible, be acquainted with the testator and thoroughly understand his mental condition at the time when he executes his will.

A person having a beneficial interest in the will should not be a witness

The residence of the witness should be placed opposite name.

The number of witnesses required varies in different states.

The witnesses should sign in the actual presence of the testator and where he can see them sign; and in the presence of each other. Minors and married women, if otherwise competent, may be witnesses.

# Laws Governing Wills

- 1. All persons of sound mind, of lawful age and such as can freely exercise their own will, may dispose of their property by making a will. In some States married women cannot make a will without the consent of their husbands.
  - 2. A will is not of force until after the death of the testator.
  - 3. The testator can cancel or modify his will at any time.
- 4. The last will annuls all former wills unless it is only an addition to them.
  - 5. A will is good though written with a lead pencil.
- 6. A will made by an unmarried woman is legally revoked by her subsequent marriage unless she takes such legal steps before her marriage as will enable her to dispose of her property afterwards as she sees fit.

7. A will should first provide for the payment of all just debts

and funeral expenses.

8. Property bequeatned, if encumbered with debts, must first be applied to pay them before distribution is made to the beneficiaries.

- 9. A corporation may receive property bequeathed to it, if provision is made for it in its charter for accepting such gifts.
- 10. No husband can by will deprive his wife of her dower, that is, "one-third of her husband's real estate," namely, the proceeds of one-third of the real estate and appurtenances as long as she may live. Additional bequeaths can be made to her by the husband.
- 11. A husband can will his wife a certain amount in lieu (in place) of her dower, stating it to be so intended; this, however, does not deprive her of her dower, provided she prefers it to the bequeath. If the will does not distinctly state that the bequest is in lieu of her dower, then she is entitled to both.
- 12. If a married woman possess property, and dies without a will, her husband is entitled to administer upon such property in preference to any one else.
- 13. Any bequest of property made to a subscribing witness is invalid, although the integrity of the will is otherwise not affected thereby.
- 14. The testator's full name should always be written at the end of the will. If he cannot write, he must make his mark, having his hand guided by another person. Such mark, if he is conscious of what he is doing, renders the will valid.
- 15. It is always best if the testator appoints some suitable person or persons to act as executor.
- 16. An executor may always erect a suitable tombstone and charge the expenses to the estate if no other provision has been made.
- 17. If there is no executor named in the will an administrator will be appointed by the court to settle the estate.
- 18. A person appointed executor is not obliged to serve, but may renounce his appointment by a legal written notice, signed before two witnesses, which fact must be recorded by the same officer before whom the will has been proved.
- 19. The will should be presented for probate as soon as possible after the death of the testator.

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## Codicils

A written addition made to a will is called a codicil and is executed like a will. It is designed to explain, modify or change former bequests made in the body of the will. It must be executed with equal care as the will itself.

Revocation.—A will may be revoked by an actual destruction or obliteration of the document, or by the making of a new will of later date.

Marriage and the birth of a child after the execution of a will revoked it at common law, and this rule has much force in the United States now, although it is variously modified by statute in the different States. If a man makes a will and subsequently marries, he should be careful to make a new will as soon as possible.

**Probate.**—No will is effectual to pass either real or personal estate unless it has been duly proved and allowed in the probate court. The attesting witnesses must all, if possible, be produced. If any are dead, or have left the State, proof of their handwriting may be required.

So long as the probate remains unreversed on appeal, the due execution of the will, the sanity or capacity of the testator, and the attestation of the witnesses, cannot be called in question in the courts of common law.

A codicil requires the same number of witnesses as the will.

#### Form of Will

I, JOHN R. BAKER, of the city of Freeport, in the county of Stephenson, and State of Illinois, being of sound mind, memory, and understanding, do make my last will and testament in manner and form following:

First. I give, devise and bequeath to my wife, Anna, her heirs and assigns forever, one-half of all my property, real, personal and mixed of what nature and kind soever and wheresoever, the same shall be at the time of my death; the same to be in lieu of her dower at common law.

Second. I give, devise and bequeath unto such of my children, as may be living at the time of my death, one-half of all my property, real, personal and mixed, of what nature and kind soever and wheresoever, the same shall be at the time of my death, to be divided among them there, share and share alike.

Third. I hereby direct and empower my executor to sell and dispose of all my personal property to the highest bidder at auction, as soon as practicable after my death, and to sell my real estate at auction or private, as it may in his judgment seem most advantageous, or for the interest of my said devisees.

Fourth. I hereby appoint my wife, Anna, guardian of the person and estate of such of my children as may be minors at the time of my death.

Fifth. I hereby appoint Joseph M. Baker executor of this my last will and testament.

IN WITNESS WHEREOF, I, JOHN R. BAKER, the testator, have to this, my last will and testament, set my hand and my seal, this eleventh day of June, A. D. 1911.

JOHN R. BAKER. SEAT,

Signed, sealed, published and declared by the above named John R BAKER, as and for his last will and testament, in the presence of us, who have hereunto subscribed our names at his request, as witnesses thereto, in presence of the said testator and of each other.

ALBERT B. MILLER,
Freeport, Ill.
DAVID SMITH,
Freeport, Ill.

WILLIAM BROWN, Freeport, Ill.

## Codicil to the Above Will

WHEREAS, I, JOHN R. BAKER, did on the eleventh day of July, one thousand nine hundred and four, make my last will and testament, 1 do now by this writing add this codicil to my said will, to be taken as part thereof.

Whereas, by the dispensation of Providence, my son William has died on the third day of August, 1904, I give and bequeath unto my nephew, Charles S. Brown, the share of one-half of all my property, real, personal, and mixed, of what nature soever and wherever, at the time of my death, that would have fallen as his share to my son William, if he had lived, as bequeath in the body of this will.

In Witness Whereof, I bereunto place my hand and seal, this first day of September, one thousand nine hundred and eleven.

JOHN R. BAKER. SEAL

Signed, sealed, published and declared to us by the testator John R. Baker, as and for a codicil to be annexed to his last will and testament. And we, at his request, and in his presence, and in the presence of each other, have subscribed our names as witnesses thereto, at the date thereof.

EDWARD J. BRADFORD, Freeport, Ill. DANIEL F. JOHNSON, Freeport, Ill. JOHN F. WILSON, Freeport, Ill.

# Form of Will, Where Property is Left to the Wife Absolutely

This is the last will and testament of me, DAVID Goss, made this eighteenth day of June, A. D. 1911, in Hamilton, County of Butler, and State of Ohio, as follows:

I bequeath all my lands, tenements and hereditaments, and all my household furniture, ready money, securities for money, money secured by

life insurance, goods and chattels, and all other parts of my real and personal estate and effects whatsoever and wheresoever, unto my wife, Sophia Goss, her heirs, administrators and assigns, to and for her and their absolute use and benefit, according to the nature and quality thereof respectively, subject only to the payment of my just debts, funeral and testamentary expenses, and the charge of proving and registering this my will.

And I appoint my said wife executrix of this my will, and thereby revoke all other wills.

IN WITNESS WHEREOF, I hereunto set my hand and seal, the day and year above mentioned.

DAVID Goss,



Signed, sealed published and acknowledged by the said DAVID Goss, as and for his last will and testament, in the presence, of us, and at his request, and in the presence of each other, have subscribed our names hereunto as witnesses thereof.

JOHN J. JONES,
Hamilton, Ohio.
WM. F. JOHNSON,
Hamilton, Ohio.

# TAXES

Every government, whether of town, State or nation, is under the necessity and has the right to raise the necessary funds to carry on all the functions of the government.

Definition.—Tax is the sum of money which the government demands from the individual or from his property to pay for the benefit he receives from the government.

The government protects him in his rights, protects his property and often advances the value of the same by public improvement. It therefore has a right to levy a tax upon him and his property.

Kinds of Taxes.—Taxes are either direct or indirect.

Direct Taxes are those which are levied directly upon persons, property, incomes, etc.

Indirect Taxes are such as are assessed on manufactures, imports, etc., as the customs tariff and most of the excise or internal revenue taxes.

Taxation in the United States ranges itself under the three heads of federal, State, and municipal.

Federal Taxation is laid almost wholly in the form of duties upon manufactured goods imported from foreign countries and

excise or internal revenue taxes laid on the manufacture and sale of liquors, cigars, etc., and collected in great part by means of stamps. In 1861 a tax was imposed on incomes over \$800, and during its ten years' continuance realized for the government \$365,000,000. An income tax was again imposed in 1894, but was declared to be unconstitutional by the U. S. Supreme Court. A special tax was imposed on corporations in July, 1909.

State Taxation is laid upon property by a periodical valuation. In some States this is supplemented by taxes on occupations or "privileges," on franchises of corporations, on legacies, etc.

Municipal or local taxation is commonly very much heavier than State taxation. It embraces: (1) all taxes laid for the general purposes of counties, cities, boroughs, towns and villages; and (2) those local taxes which are usually called assessments, and which are laid in special districts supposed to be peculiarly benefited by the construction of some public work, and by some rule of apportionment which proposes to charge each item of property within the district in proportion to the benefit it will receive.

Poll Tax.—Some States levy tax upon all male citizens over twenty-one years of age, others upon all voters. This is called poll tax.

Property Tax.—Tax levied upon property, real or personal, is called property tax.

Valuation of Property.—The assessor of the town or city estimates the true value of every piece of taxable property, which is usually lower than the market value. It makes little difference whether the property's valuation is high or low, because the amount of tax to be raised is rated according to the valuation, but it is of importance to any individual taxpayer that the valuation of his property shall be neither higher nor lower than that of others.

In many States when county taxes are levied, there is a county board of assessors who receive the tax lists from the assessors of the several towns and cities within the county, and if necessary, in their judgment, they make such changes as justice seems to demand. To them an individual who believes himself overtaxed can within a certain time appeal for correction.

For the State tax, there is in many States a State Board of Equalization. This board receives the lists from all the counties

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and makes the necessary equitable adjustment of taxes throughout the State.

Levying Taxes.—The rate of taxation is determined as follows: Having placed the valuation upon all the property, there is fixed the amount of money to be raised by the town; from this sum the poll tax (where there is any) is subtracted. If this sum is divided by the total valuation of the property of the town the quotient is the rate of taxation; that is, the sum to be raised on each dollar of property.

The amount varies all the way from two mills on the dollar, or perhaps less, to twenty cents on each hundred dollars or two dollars on each thousand dollars of property. In large cities the rate of taxes is sometimes as much as 2 per cent or twenty dollars on a thousand, or even more.

Collection of Taxes.—In many States the town collector collects all the taxes for the town, county and State; in others the county collector collects of all the towns.

Penalties.—The law fixes the time of payment of taxes. If one neglects to make payment within the specified time a fine or penalty is added. If the person is still delinquent after a further specified time the property is sold at auction. The government then collects enough money to pay the taxes and expenses and gives a tax title to the purchaser of the property. The former owner has a specified time in which to redeem his property by payment of the tax and all the cost.

The Treasurer and Auditor.—The collector pays the money collected to the treasurer, whether town or county, and takes a receipt. The treasurer is required to give bond.

The auditor audits every bill presented for payment before the treasurer is permitted by law to pay it. The treasurer's account must, therefore, correspond with the final account rendered by the auditor.

**Exemptions.**—Many States exempt the following property, viz.: Certain portions of one's personal property, such as tools and utensils of laborers, institutions of learning and charitable institutions, also churches and parsonages.

Real and Personal Property.—A very large part of the taxes must be collected from real estate. The tax from personal property includes all tax except that on lands, lots and buildings. The State tax in our country is usually much less than the town, city or county tax.

# **TELEGRAPHS**

The business of telegraphy is carried on by corporations and consists of the making and performing of a system of contracts.

Parties to the Contract.—There are two parties to the contract, (1) the sender of the message, and (2) the telegraph company. Each party agrees to do certain things and each must keep his (or its) agreement. If the company fails to do what it agreed, the sender can compel it to pay for all loss resulting.

There is ordinarily no contract between the company and the one to whom the message is sent and it is therefore not responsible for any loss he may suffer.

The Contract.—The ordinary telegraph blank usually constitutes the contract. The sender requests the company to send a message (called a dispatch), and such a request is in effect an offer to pay for the service if rendered. The company by taking the message agrees to send it, i. e., accepts the offer. The request and compliance, or the offer and acceptance, make the contract.

The Terms.—The principal parts of this contract are (1) the sender agrees to pay for the message at the regular rate and the company may refuse to take it unless he pays in advance; (2) the company agrees to send the message by telegraph with promptness, deliver it to the person addressed and not reveal its contents to any one else.

Accuracy.—The message must be sent as it is given. Hence the operator cannot correct evident mistakes, such as mistakes of grammar, nor add, nor omit anything, nor make any change in it.

The liability of the company for mistakes is often limited by its blanks, the blank being drawn in such a way that it is a contract.

**Promptness.**—The message must be sent as soon as possible and different messages must be sent in the order in which they are received.

Secrecy.—A telegraph company is a confidential messenger. It has no right to reveal the message to any one, except the one to whom it is addressed.

Submarine Telegraphy.—Although the system of transmitting messages by means of electric cables laid on the bottom of the sea has come into use since 1851, it is now in operation in almost

every part of the world. The total length of the submarine cables of the world to-day is over 180,000 nautical miles.

Wireless Telegraphy.—In 1897 Marconi announced a system of wireless telegraphy, operated by means of electrical vibrations set up in one apparatus and transmitted through space to a distant receiving apparatus without the aid of an intervening wire On December 21, 1902, he established wireless telegraphic communication between Cape Breton, Canada, and Cornwall, England, a distance of 2,300 miles. Messages are now sent regularly by this system for considerable distances, and it is contended that so far as reliability goes, wireless telegraphy is far superior to the ordinary wire lines.

An ocean steamship, with a wireless telegraph equipment on board, is in constant communication with land and with other vessels similarly equipped throughout its trip, and the safety as well as comfort of an oceanic voyage is immeasurably increased by its use.

Wireless telegraphy has been most successfully used in oceanio signaling. The Japanese are in a great measure indebted to it for the success of their navy over that of Russia at Port Arthur, their principal warships being equipped with the necessary wireless transmitting and receiving apparatus.



The passengers and crew of the White Star Line Steamer REPUBLIC were saved by means of its wireless equipment when the ship was rammed in a fog by the Italian steamer FLORIDA off Nantucket Lightship, Jan. 23, 1909.



"The man who is in debt carries a world of trouble."-BURKE.

# HOW TO COLLECT DEBTS

Pay as you go, or a strictly cash business, is the best and safest method of doing business. But certain conditions or customs in trade make this sometimes impractical or impossible, and credit must be given. Under this method dishonest, careless or unfortunate people contract debts, then refuse, neglect or are unable to pay them, and collections, peaceable or forced, become a necessity.

The requisite steps to collect such debts are a matter of great importance and should be understood by everybody, but they are not, and much unpleasantness and heavy losses are often the result.

## Methods by Which Debts are Contracted

Goods are bought on credit, to be paid for at a definite or indefinite future time. Labor is employed, to be paid for at certain future periods. Lands, houses and other property are purchased under contract of future payment. Money is borrowed, under notes, mortgages or other securities, and many other transactions in business and trade call forth occasions or present temptations to contract debts.

## Suggestions for Avoiding Debts

1. Do a Strictly Cash Business.—Better small profits and quick sales, than large profits and long credits.

Mark your goods as low as possible and adhere unswervingly to your cash principle. This is best for buyer and seller. It avoids collections and prevents losses. It saves the time and labor of keeping accounts. This enables the seller to sell cheaper and the buyer to buy for less than on credit.

2. Cautions.—Goods sent abroad should be paid for before the purchaser takes possession.

The time of credit should be as short as possible and the bills collected when due. When working for others collect your wages weekly or monthly, in accordance with the agreement to pay, unless your employer is quite responsible, thus making your dues safe.

In renting lands or houses, a duplicate lease should be made, one for each party, the rent paid promptly when due, at the house or business place of the landlord, and the payment credited on the back of the lease.

In receiving or making payments, a receipt should always be made out; it is a voucher and may save trouble.

Hotel and boarding-house keepers cannot be too prompt and strict in collecting their dues, as their customers are mostly transient, making forced collections sometimes impossible.

Never loan money without requiring a note or a duebill, if the amount is small; this is safest even between the most trusted friends.

When the loan is large, have the note secured by a mortgage on real estate; but see to it that the same is not encumbered by previous claims, which would render your security worthless. It is safest to require an abstract of title and then have your mortgage recorded immediately.

This precaution should also be observed where a chattel

mortgage is taken on personal property.

If a small amount of money has been loaned without security, and it can apparently not be collected without legal process it may be best to drop the matter and consider the loss as so much paid for a lesson in business prudence.

## First Steps in Making Collections

These depend very much upon circumstances. The debtor may have met with reverses or a misfortune, rendering him unable to pay at the time specified, and deserving of patience; others may be careless and need a sharp reminder; a third party, inclined to be dishonest, may need close watching. Thus discretion is necessary as to the form and tone of the letters requesting payment. For letter forms illustrating the first efforts in making collections, see pages 65 and 66.

# LEGAL STEPS IN COLLECTIONS

No other motive except the question "Will it pay?" should induce a creditor to legally enforce payment. A mere feeling of retaliation or of getting satisfaction has no place in business.

Before resorting to the power of law it is well to ask the following questions:

1. Have all reasonable and peaceable efforts been made to induce the debtor to make payment?

2. Is the amount sufficient to warrant the expense involved in the legal process?

3. Has the debtor more property than the law allows him by way of exemption?

4. What does the law exempt? (See Exemption Table.)

When all peaceable means have been exhausted and the debt is not paid, it then becomes necessary to collect it, if possible, by legal process.

If satisfied that the debt can be collected, then the account should be placed in the hands of a justice of the peace, unless it is larger than comes within his jurisdiction.

This amount varies in different States, as shown by the following table:

## Limit of Jurisdiction with Justice of the Peace

The following shows the largest amount in the different States and territories which the justice of the peace, through his official position, can have jurisdiction over:

Alabama	\$100	Louisiana\$100	North Dakota\$200
Arízona	300	Mainenone	Ohio 1001
Arkansas	100	Maryland 100	Oklahoma 100
California	800	Massachusetts 100	Oregon 250
Colorado	300	Michigan 100	Pennsylvania 300
Connecticut	100	Minnesota 100	Rhode Island 100
Delaware	200	Mississippi 200	South Carolina 100
Dist. of Columbia	300	Missouri 250	South Dakota 100
Florida	100	Montana 200	Tennessee1,000
Georgia	100	Nebraska 200	Texas 200
Idaho	300	Nevada 300	Utah 300.
Illinois	200	New Hampshire 100	Vermont 200
Indiana	200*	New Jersey 200	Virginia 100
Towa	100*	New Mexico 100	Washington 100
Kansas	300	New York 200	West Virginia 300
Kentucky	50	North Carolina 200	Wisconsin 200
*By consent of	parties.	\$300.	Wyoming 200

When the amount comes within the jurisdiction of the justice he issues a summons, which the constable presents to the debtor, reading it to him if he can be found, which is called "serving the summons."

#### Form of Summons

The wording of this summons will be somewhat as follows;

The People of the Stale of --- to any Constable of Said County-

You are hereby commanded to summon L. M. to appear before me at — on the — day of —, at — o'clock —— M., to answer the complaint of R. L. for a failure to pay him a certain demand not exceeding —, and hereof make due return, as the law directs. Given under my hand this — day of —, 19—.

JAMES WATTS, Justice of the Peace.

In case the party is absent or refuses to hear the summons the constable may read it to some member of the family of ten years or upward and leave a copy of the same. A summons is usually served at least three days before the trial is to take place. Upon

the serving of the summons the debtor may pay to the constable the demand of the debt and costs, taking his receipt for the same, which will satisfy the debt and prevent all further costs.

## The Judgment

If at the time set for trial both parties appear and are ready for the same, the justice proceeds with it and determines the matter in controversy. His determination is called the judgment. The judgment can be rendered if the defendant does not appear at the trial.

## Demanding a Jury

Either party in a trial before a justice of the peace may demand a jury, and the justice is bound to grant the demand upon the deposit with him of the jury fees by the party making the demand. The jury may consist of either six or twelve men.

#### The Execution

The judgment being obtained, the plaintiff may now enforce payment. This process is called execution. It consists in a writ commanding the constable to seize sufficient of the property of the defendant, "which is not exempted by law," to satisfy the claim and costs and to sell the same and bring the money into the court to be paid to the plaintiff. The constable then proceeds to do this and if he succeeds in finding such property seizes it, sells it at auction, and brings the money into pourt.

#### Attachment

While the causes for which an attachment writ will issue vary romewhat, in the different states, the following grounds are almost universal:

Where the debtor is a non-resident or a foreign corporation; where the debtor is about to remove from the state; where the debtor conceals himself so that process cannot be served upon him; where the debtor has removed or is about to remove his effects from the state to the injury of creditors; where the debtor has fraudulently conveyed, concealed or disposed of his property so as to hinder and delay creditors, or is about to do so; where the debt was fraudulently contracted and the statement constituting the fraud reduced to writing.

The ereditor must file with the clerk of the court an affidavit, stating the nature and amount of his indebtedness and any one

of the preceding causes, and the place of residence of the debtor if known, or that upon due inquiry the has not been able to ascertain the same.

Usually the attachment is not issued until the debt is due, but in some States it is issued before if it can be shown that the debt would probably be lost unless an attachment is secured at once.

The Creditor's Bond.—In order to secure the costs and the debtor against all damages in case the attachment is improperly issued the creditor securing the same must give a bond, usually double the amount claimed.

The Writ makes it the duty of the officer to at once seize sufficient property of the debtor to satisfy the claim (excepting such as is exempt from execution) and to hold the same until the plaintiff can get judgment and seize it upon execution. Property of the debtor in the hands of a third party may also be seized.

The Real Object of the Attachment is to hold sufficient property of the debtor to satisfy the debt until the creditor can get judgment. When the property has been seized the summons is served, and if the case is properly proved judgment is obtained in the ordinary way. After this the creditor takes out his execution, makes a levy upon the property attached, and out of the proceeds satisfies his debt.

Each State has its own attachment laws, and since officers of the law must be engaged to obtain the attachment there need be no difficulty in the details of the procedure.

Garnishment or Suing the Garnishee.—In the course of collection of debts it sometimes happens that while the defendant himself may have no property in his possession upon which an attachment can be made some other person may have in his possession property belonging to the debtor or may be indebted to him. In such cases the plaintiff can proceed against this third party, who is called the garnishee, just as against the original debtor, although in some States a certain amount of money is exempt and cannot be garnisheed.

# Attaching the Body

If under an attachment the officer returns "no property found," but the plaintiff is convinced that the defendant has property concealed, with the intention of defrauding him, and believes he is in danger of losing his claim unless the debtor is held to bail, several States empower the justice to issue a capias for the arrest of the debtor. A capias is issued usually only as a last resort, when it appears that the claim can only be collected by arresting the defendant.

#### Persons Who Cannot Be Arrested

The constitution of the United States prohibits the arrest of members of Congress and electors while on duty, except for treason, felony and breach of peace. In many States the militia, while attending musters or while on a journey; so also attorneys and counselors at law, judges, sheriffs, and all other officers of the several courts, also witnesses and other persons necessarily attending court are exempt from arrest except for felony, etc.

#### Real Estate Held for Debt

When under an execution no personal property can be found with which to pay the debt and it is known that the debtor possesses real estate enough to meet the claim, then certain States allow the justice to certify to the clerk of the circuit court a transcript of the judgment. This, when filed by the clerk, becomes a lien upon the real estate of the debtor. The court can then issue an execution and the property be sold for payment of the debt and costs.

# Right to Appeal

If all legal steps have been properly taken in a trial before a justice or jury and the decision is that the debtor must pay the claim, he can then appeal to the next higher tribunal, which is the circuit court, district court, court of common pleas or other.

Before an appeal is allowed the defendant must give a bond, signed by one or more responsible persons, to a sum twice the amount of the claim, to cover the debt and all costs in case he is beaten.

If the defendant loses his case also in this court then he can carry it to the supreme court of the State, where the matter generally ends, though the way remains open for him to appeal to the Supreme Court of the United States. A bond twice the amount of the debt and the costs accumulated by the successive trials up to this time is required before an appeal from one court to another is granted, as from the first.

When an Amount Beyond the Jurisdiction of a Justice is to be collected the case must be brought before the circuit court, district court, court of common pleas, or a court of similar character. There the clerk issues the summons, the sheriff or his deputy serves it and the case is usually tried before a jury of twelve men at the next term of Court.

## Delay in Forced Collections

Since the defendant can promptly defend his case and if beaten appeal to a higher court, he can thereby delay payment of the original debt for one or more years. But as each appeal increases the costs they soon become heavy and but few persons are able or willing to bear them. A debtor will generally pay the debt in the earlier part of the prosecution, unless he believes himself wronged or for other reasons refuses to do so.

## Cost of Collections by Law

The first questions that should properly be asked, before resorting to or before submitting to collections by law, are: What will it cost? Will it pay? The actual cost cannot definitely but only approximately be foretold, and only in so far as the amount of the fees are fixed by law.

If the amount and the intricacies of the case are such that it is thought best to employ a lawyer a day or two, his charges will probably range from ten to twenty dollars.

If the plaintiff gains the case the debtor must pay all the costs. If the justice or jury decides against the plaintiff, declaring no cause for action, then the plaintiff must pay the cost of the suit.

The following fees of an ordinary suit vary in the different States:

Docketing the suit\$	0.25
Issuing summons	.25
Constable for serving summons	.35
Each mile traveled by constable in serving summons	.05
Justice fee for entering up judgment	.25
For discharge of docket	,25
Fee of justice for hearing statement and giving decision	2.00
-	
Total\$	3.40

Witnesses are allowed 50 cents a day. Say two witnesses\$ 1.00  Justice for issuing subpæna of witnesses at 25 cents
Constable for serving each subpœna at 25 cents
Total \$ 5.90
If tried by jury, each juryman is allowed 50 cents; 12 jurymen 6.00 For entering verdict of jury
Approximate cost of trial without attorney before a justice if settled there
Total\$27.65
If debtor does not settle, fee for execution
Total cost of legal process ending in execution\$34.65

Total cost of suit involving say a debt of \$50.

If the case is settled without effecting the sale under execution, the cost connected with the execution is one-half of what is stated above. Add to this the time lost, to say nothing about the moral effect, and the question, "Will it pay?" is pretty well answered.

# Exemption Laws of the Different States

Exemption laws are for the purpose of protecting those who are unable to pay their debts without causing distress to themselves and their families.

In many of the States debtors who desire to avail themselves in full of the provisions of the exemption laws are required to make a schedule of their personal property of every kind and character, including money on hand and debts due and owing to the debtor, and deliver the same to the officer serving the writ of execution. This schedule must be sworn to by the debtor.

Making this schedule properly is of the utmost importance. There should be no delay. Care must be exercised that no article of property is omitted.

	Personal		Personal
State.	Property Homestead	State.	Property Homestead Exempt.
	Exempt.		
Alahama	\$1.000\$2.000	Montana	
Arizona		Nebraska	500 2,000
Arkansas		Nevada	
California	5,000	New Hampshire	
Colorado	2,000	New Jersey	
Connecticut.		New Mexico	
Delaware	200	New York	
Dist.of Columb	bia 300	North Carolina	
Florida	1,000160 Acres.	North Dakota	1 500 5 000
Georgia	1,600or 1,600	*Ohio	100 1,000
Idaho	5,000	*Oregon	1,500
Illinois	4001,000	Pennsylvania.	
Indiana	600or 600	Rhode Island.	300
lowa	200. or 40 Acres.	South Carolina.	
Kansas	160 Acres.	South Dakota	
Kentucky	1,000	Tennessee	
Louisiana	Total, 2 000	Texas	
Maine	500	Utah.	
Maryland		Vermont	200 500
Massachusetts	800	Vuginia	
Michigan	400 1 500	Washington	500 2,000
Minnesota	50080 Acres.	West Virginia	
Mississippi		Wisconsin	
Missouri	300 3,000	Wyoming	
	000,,,,,,,,	1 1130111111111111111111111111111111111	000111111 2,000

Note.—In many of the States it is impossible to place a fixed amount on personal property exempt. In the table above these States have no amount given in the personal property column. \*Oklahoma, homestead 160 acres.

#### The Time in which Debts are Outlawed

- 1. It is found necessary in all commercial countries to fix a limit of time in which debts hold good. It would not tend to sound business practices or fairness for a creditor to be allowed unlimited time in which to enforce the collection of a debt.
- 2. Statutes of limitation have therefore been enacted, the period of time varying, there being no natural boundary line.
  - 3. The range of time is from one year to twenty years.
- 4. In accounts it generally begins from the purchase of the last item, and is renewed by every partial payment.
- 5. In case the debtor makes a written acknowledgment in a note, or papers of that character, the claim is renewed.

For the statutes of limitation in force in the different States, see title, Interest Laws and Statutes of Limitation.





RUSSELL SAGE

# STOCK JOBBING

The practice to which the term "stock jobbing" is more particularly applicable, is that of dealing in stocks or shares by persons who possess but little or no property in any of the funds, yet who contract for the sale or transfer of stock at some future period at a price agreed upon at the time. Such bargains are called *time bargains*, and this practice is *gambling* in every sense of the word.

Wall Street, in New York City, is the principal scene of stock jobbing in the United States. The New York Stock Exchange is the dominant feature of this locality. Here the prices of stocks and securities are determined, and here men become millionaires or paupers in a day.

Big Profits and Big Losses.—Stock jobbing is carried on to an amazing extent, and is of this character: A agrees to sell to

B \$50,000 of bank stock, for instance, to be transferred in twenty days, for \$60,000. Now if the price of bank stock on the day appointed for transfer should be only 118 per cent, he may then purchase as much as will enable him to fulfill his bargain for \$50,000 and thereby gain \$1,000 by the transaction. Should the price of bank stock, however, advance to 125 per cent, he will have to pay \$62,500 for the necessary amount of stock and will thus lose \$2,500 by completing his agreement.

Advice of an Experienced Financier.—Russell Sage, one of the most successful financiers in the United States, gives the fol-

lowing advice concerning Wall Street speculations:

"The fact cannot be too strongly impressed upon the minds of intending Wall Street speculators that for every dollar gained in Wall Street there is a dollar lost, and as the people who gain the dollars are always well-known old-timers in the business, it follows, clearly, that the people who lose the dollars are the new-comers. It often happens, too, that in an unguarded moment an old-timer is ruined in Wall Street; but it is always the other old-timers who benefit by his collapse—the new-comers do not figure in the deal.

"'Experience' in Wall Street counts for nothing unless the experience of many years' duration, or is had as a friend of a

certain clique.

"No doubt the man who goes into Wall Street speculation with a \$1,000,000 capital may, with great prudence, be able to win \$1,000,000 or \$5,000,000 more after five or ten years. But he will lose from half to three-quarters of his original capital in acquiring the knowledge of the 'wire pulling' that will be necessary for him to be possessed of before he can begin to be making regular, permanent, steadily increasing gains. Exceptions have been extremely rare, and were the result of mere chance.

"As a rule, however, for a person with less than \$25,000 or even \$50,000 to go into Wall Street is sheer throwing away of money. I have seen thousands of men with capitals larger than that go down with the loss of every dollar. Some of them were

men of exceptional shrewdness, too.

"I tried speculation, when, in 1874, I bought a seat in the Stock Exchange. But when I found out what the conditions were, I simply got out at the first opportunity.

"I do not wish to be drawn into any controversy in the matter, so will not particularize; but the person who is thinking of going into Wall Street speculation in the hope of making money when he has learned what is popularly called 'the ropes' would do well to ponder what one writer has written on the subject:

""Some brokers of the Stock Exchange simply bid the figures to win their bets which they have made with their dupes—are running a "brace" game. Pretending to trade in stock, they delude the speculating public with the idea that they bid stocks up or down according to conditions of trade, war news, and so on. In reality, their only object is to bid the figures against the lambs on the floor who bring in the money of the lambs on the outside. In the nature of things, that could be their only object. The business not being a trading in actual stock, but simply betting on figures, the only object of the thimble-riggers on the floor is to bid the figures so as to win their bets. Several shysters, acting in collusion, pretend to trade furiously with one another, their bids in these "wash" sales "washing" a stock up or down."

Life in Wall Street.—"The general public has an incorrect idea of the nature of the life of a Wall Street businss man. The speulators no doubt are compelled to live under conditions of unnatural excitement; but it is not so with the Wall Street operator who does not speculate—the man who buys stock with the object of improving its value, and retaining it. There is no more undue excitement in the life of a Wall Street business man than there is in the life of a wholesale dry goods dealer. The man who deals in money—that is what a Wall Street business man does—must be just as thorough a business man as the man who deals in merchandise.

"The wholesale grocer looks about the field before him, and discovers that by purchasing an agency in a certain section and spending some money in developing its resources he can make his general wealth so much larger; and so it is with all other dealers in merchandise. The Wall Street business man does not do differently. He simply examines the field before him, and his experience teaches him that if he buys out a lot of stock in a certain concern which is in great need of ready money, he can lend the money to that concern, and the result will be that the value of its shares will go up. Instead of selling this stock when it becomes valuable, as the public imagines he is always anxious to do, it is seldom that the Wall Street business man cares to part with it.

"The Wall Street Speculator differs from the Wall Street business man in this respect, in that after buying a certain stock he either cannot or does not do anything to make it more valuable except in the belief of the lambs by the bidding for it which he

prompts his agents to do. Then when he sells it at a higher figure the real truth of the matter is that the actual value of the stock has remained all the meanwhile in exactly the same place where the value was at the time the speculator originally purchased 't. It is to persons such as the latter that fortunes are lost in Wall Street."

Bucket Shops are places which secure Stock Exchange quotations, or pretend to do so, and furnish persons of moderate means the same opportunities for gambling offered to wealthy speculators at the Exchange. Here anybody can gamble in futures by risking as small an amount as five or ten dollars, but his chances of winning out are about the same as if he had put up his money on a shell game or three card monte.

# WAREHOUSING

Warehouses are divided generally into two distinct classes:

1. Bonded warehouses, under the control of the government.

2. Unbonded, or private warehouses.

Bonded Warehouses are buildings in which imported merchandise is stored until the importer makes entry for withdrawal for consumption and pays the duties, or until he withdraws the merchandise for reëxportation to a foreign country without paying the duties.

These warehouses are owned either by the government, or are private bonded warehouses, whose proprietors must obtain authority from the Secretary of the Treasury for receiving imported goods before the duties thereon are paid. Those owned by the government are under the entire control of the collector of the port, who assesses a charge at a fixed rate for the storage of goods, and this charge, with the import duty, becomes a lien upon them. The private bonded warehouses are required to be first-class, fire proof buildings, and to be used for no other business, and they must be approved by the Secretary of the Treasury before receiving any merchandise. A government officer is placed in charge, at the expense of the owner, and the business is conducted under provisions and requirements established by the government. The officer of the customs detailed to take charge of a bonded warehouse, and under whose supervision bonded goods are received and delivered from the warehouse, is called a bonded storekeeper.

Sulject to order hereon on payment of all charges and the surrender of this receipt properly endorsed. No. 3997 This Company will provide carry desired semperature, but will not be responsible for results Monarculterngeranne Contant 239-241-243-245-247-249-251-253-255-257-259-261 MICHIGAN ST. Chicago. Received for storage from \_\_\_ Subject to SERIES O. Articles Lot. Wh. Sec.

MONARCH REFRIGERATING COMPANY, Warehouse receipts must accompany, delivery orders.

As agreed that all loss ordamage to property occasioned. By fire, water Leakage, rermin, ratage, breakage, frosh accidental or providential causes, riol or insurrection or to perishable property is at owners risk. Loose fish, loose meals and any class of goods, not property packed at owners risk. Not responsible for skrinkage in weights.

Form of Warehouse Receipt

Goods, wares and merchandise imported into the United States, subject to the payment of ad valorem duties, are required by law to be appraised at their "actual market value" in the foreign port at time of export. As it is frequently difficult to establish an actual market value in a foreign port, many goods being made only and expressly for foreign markets, and not sold nor offered for sale at the place of their manufacture or shipment, serious litigations often arise between the merchant and the government. This difficulty has led to the recognition by the commercial world of the distinctions, cash value, market value, and intrinsic value, although the laws name but one—the "actual market value."

In the United States the government warehouse system has been extended to other than imported goods. Thus spirituous liquors may be deposited in certain warehouses under the control of ar internal revenue collector, and payment of the internal revenue taxes delayed until the liquors are withdrawn. Bonds are usually required of persons availing themselves of this privilege, and the liquors so stored are said to be in bond.

Unbonded Warehouses, or private storage houses, are common in all the large cities of the United States, and are mostly used for the storage of household goods. There are many, however, used exclusively for the storage of merchandise, some of which are known as cold-storage warehouses. In some States warehouses for the storage of grain, etc., are subject to State inspection and supervision.

The rates for storing bulky articles are usually fixed at so much per month, according to the amount of space occupied. The warehouseman is regarded as a bailee for hire, and must take ordinary care of the property placed in his custody. (See Bailments.)

Warehouse Receipts given by private warehouse companies are negotiable instruments and pass from hand to hand by indorsement, or they may be used with banks, etc., as collateral security for money borrowed. There is usually a provision in the receipt that its transfer by indorsement and delivery shall be a conclusive transfer of the property. Where this is the case the receipt is an acknowledgment of the warehouseman that the goods are actually in store, and he becomes liable for their value even if no such goods as described in the receipt have been stored with him.

# TRADE AND COMMERCE

The Terms "trade" and "commerce," primarily, have the same meaning, only the latter is now generally restricted to the buying, selling, exchanging, etc., of commodities between different nations or States, while the former is applied indiscriminately to all commercial intercourse, whether domestic or international

Trade is divided generally into two classes, wholesale and retail. Wholesale trade deals in goods by the piece or in large quantities, supplying retail dealers and middle men generally, while retail trade deals in small quantities and supplies goods directly to consumers.

The Wholesale Trade of a country is divided into four different kinds: the home trade, the import, or foreign trade of con

sumption, the export trade, and the carrying trade.

The Home Trade is employed in purchasing in one part of the same country and selling in another the produce of the industry of the country, and it comprehends both the inland and coasting, or that which is carried on both by land and sea.

The Import Trade is employed in purchasing foreign goods for home consumption.

The Export Trade is employed in connection with goods and produce sent to foreign markets.

The Carrying Trade is employed in transacting the commerce of foreign countries, or in carrying the surplus produce of one to another.

Commerce distributes the gifts of nature, balancing the deficiencies of one country with what is superfluous in another creates a demand for labor, finds employment for wealth, and nultiplies and cheapens the productions of every country.

Exports and Imports.—A quarter of a century ago the United States ranked fourth among the commercial nations of the world. To-day it stands first in the value of its exports. In a single fiscal year—that which ended June 30, 1898—the exports of the United States increased by a figure which represents a greater increase than that of England in twenty-five years. In 1800 the total value of exports of the United States was \$70,971 780, and in 1915 it had increased to \$2,768,589,340. The total value of the imports of the United States for the same year was \$1,674,169,740.

Foreign Carrying Trade.—During the year ending June 30, 1913, the foreign carrying trade of the United States amounted to

\$3,773,030,924, of which \$81,032,495 was in American vessels.

Inland Carrying Trade.—In its railway commercial facilities the United States is preëminent. The total railway mileage of the world is 683,000, of which the United States possesses 258,000. This is 50,568 miles greater than the aggregate mileage of European railways, and is one-third of the world's total.

Manufactures.—These unrivaled facilities for transportation have induced a marvelous growth of manufactures in the United States for consumption in all parts of the world. In 1870 the manufactures of the United States just about equaled those of Great Britain, while to-day they are two and a half times as great as the total value of British manufactures, and equal to those of Great Britain, Germany and France put together.

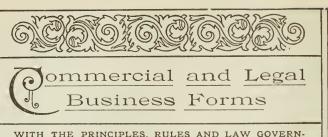
Customs Duties.—The taxes levied on imported goods are usually called customs duties.

Custom-Houses.—The place appointed by the government at ports of entry where vessels and merchandise are entered and duties upon imported goods are collected, and where vessels obtain their clearance and other papers, is called a custom-house; the collectors, appraisers, surveyors, naval officers, and their deputies, examiners, clerks at the head of divisions, inspectors, gaugers and weighers, but not subordinate clerks are called custom-house officers, and are sworn to faithful service; the persons who act for merchants in the business of entering and clearing goods and vessels, and in the transaction of general business, are known officially as custom-house brokers.

A Custom-house Entry is a statement made in writing to the collector of the district, by the owners or consignees of the merchandise on board any ship or vessel, which they desire to land.

Bonded Goods.—Foreign goods are said to be bonded, when the payment of the duties is secured by a bond, or when warehoused in a government store or warehouse, and under the control of the collector of the port until entered for consumption and the duties are paid. (See Warehousing.)

When goods are shipped from a foreign port and destined for an interior point or other place in the United States that is not a port of entry, they first go to a port of entry and then are forwarded in bond to the point of destination. This trans-shipment is effected through means of a custom-house broker at the port of entry, to whom the invoice, bill of lading, and other shipping capers are sent



WITH THE PRINCIPLES, RULES AND LAW GOVERN-ING BUSINESS TRANSACTIONS OF EVERY NATURE

# CONTRACTS

A Contract is an agreement between competent persons, on sufficient consideration, to do, or abstain from doing, some certain act or acts within some certain time, expressed or implied.

To Constitute a Valid Contract—one that can be enforced by law—five things are necessary: competent parties, sufficient consideration, mutual assent, lawful subject matter, and time of performance.

Parties Who May and Who May Not Make Contracts.—Until the contrary is shown, all persons entering into a contract are presumed to be competent to bind themselves by their agreement. Hence those who would resist the performance of a contract on the ground of legal incapacity must set up and prove the particular incapacity upon which they rely to avoid the contract.

Minors, insane persons, idiots, and persons deprived of their reason by intoxicants, are incapable of entering into contracts.

Married women, under the common law, are not competent parties to a contract. But by the statutes of most of the States a married woman is now empowered to enter into contracts regarding her own separate property, enter into business on her own behalf, or join in a business partnership with her husband.

Bound for Necessaries Furnished.—Though minors, insane persons, idiots, etc., are not, generally speaking, competent to enter into contracts, they are bound for necessaries furnished them. A husband is bound for necessaries furnished his wife, even if against his orders, if he fails to furnish them for her.

Corporations can enter into contracts, provided they keep within the limits prescribed by their charters. Anything attempted beyond those limits would be ultra vires, beyond their power, and void. Parol contracts made by a corporation's authorized agents within the scope of its chartered powers are express promises of the corporation. Like an individual, a corporation may be bound by implied contracts deduced by inference from corporate acts. See Corporations.

Consideration.—A contract without consideration is void at the option of the party against whom it is sought to be enforced. There is one exception to this rule. It does not apply to innocent indorsees and bona fide holders of negotiable papers. A promise is a good consideration for a promise.

It is not always necessary that the consideration be expressed in the contract; it is sometimes implied. Thus, when a contract is deliberately made, without fraud and with a full knowledge of the circumstances, any damage, suspension, or forbearance of a right, will be sufficient consideration. It is not necessary that the consideration should exist at the time of the promise, if it arise afterwards, in consequence of the promise.

Mistake.—A contract made under a clear mistake of fact is not binding; for instance, if A. sells to B. a horse, which both A. and B. suppose to be in A.'s stable, and at the time of the contract the horse is dead, the sale is void. But a mistake of law is binding, for every one is presumed to know what the law is.

Mutual Assent.—No contract is valid in law unless the parties agree to the same thing in the same sense. Where a person orders a' certain quantity of goods, for instance, at a certain credit, and the merchant sends a less quantity at a shorter credit, and the goods are lost, the merchant cannot recover the price of them; for there was no agreement on the terms, and hence no contract.

Subject Matter.—The thing to be done or omitted is called the subject matter of the contract. If this is illegal in its character, immoral, or contrary to public policy, the law will not enforce the contract.

Among Contracts Contrary to Public Policy is that of a man binding himself not to exercise his trade or business; but if, for a valuable consideration, he engages not to exercise his trade in a particular place, he is bound by his engagement, but he may exercise it elsewhere. A bond that the obligor shall never carry on, or be concerned in, a particular business, is void.

Time of Performance.—There must be a time, either expressed or implied, in which a contract is to be performed. Otherwise one party could postpone the execution of his contract indefinitely. Where no time is expressed, a reasonable time will be understood.

Formality.—Contracts of various kinds may be made verbally, others are required by law to be in writing. All contracts are either express or implied. Express contracts are where the terms are openly uttered at the time of making. Implied are such as reason and justice dictate, and which the law presumes every man undertakes to perform. For instance, if there is no stipulation as to the price, when one sells goods, or performs labor for another at his request, the law implies a promise to pay for such goods, or labor, so much as they are reasonably worth. It is also an implied condition of work and labor, that it be done in a suitable and workmanlike manner. But the law will never imply a promise against a party's declaration at the time.

Contracts That Must be in Writing .- The English Statute of Frauds has been substantially copied in nearly all the States. It provides that—in the following cases no agreement shall be legally enforcible unless the same, or some memorandum thereof, be in writing, and subscribed by the party to be charged therewith: 1. Every special promise of an executor or administrator to answer damages out of his own estate. 2. Every agreement made upon consideration of marriage. This applies not to promises of marriage, but to promises to pay money, or to make a settlement of property, if the marriage is consummated. 3. Every agreement that by its terms is not to be performed within one year from the making thereof. 4. Every special promise to answer the debt, default, or misdoings of another. 5. Every contract for the sale of any goods, chattels, or thing for the price of ten pounds (\$50.00), or more, unless: (a) the buyer shall accept and receive part of such goods; or (b) the buyer shall at the time pay some part of the purchase money, or give something in earnest to bind the bargain. 6. Every contract for the sale of any lands, or any interest in lands.

Where a person has the benefit of another's services under a verbal agreement, and then successfully pleads the statute of

frauds, the other party may recover so much as his services have been worth.

Interpretation and Construction.—In construing contracts, the intention of the parties must govern; words are to be taken in their natural and obvious sense; when the intention is doubtful the context may be resorted to to explain ambiguous terms; the whole of the instrument is to be viewed and compared in all its parts, so that every part of it may be made consistent and effectual. Where the language of an agreement is plain and unequivocal, there is no room for construction, and it must be carried into effect according to its plain meaning.

Ambiguities in deeds or other instruments are generally interpreted against the grantor, or contractor.

Performance.—A person who undertakes to perform a job of work by special contract, must perform his contract before he is entitled to his pay. If a person is hired for six months, or a definite time, and leaves before the end of it, without reasonable cause, he is liable to lose his wages for the period he has served. But if he is dismissed without cause he can recover for the damages he has sustained. It is no sufficient cause for abandoning one's contract, that he was put upon work not contemplated at the time the contract was made, but if he is prevented by sickness from laboring during the stipulated period, he may recover for his services as much as his services were worth, for the time he labored.

Specific Performance.—The law side of the court cannot enforce the specific performance of a contract. It can only allow damages for the failure to perform, or for breach. On the equity side of the court, certain contracts may be enforced specifically. They most commonly relate to the sale of real property.

Rescinding.—In general, a contract cannot be rescinded, unless by consent of both parties, except in case of fraud. A party having a right to rescind a contract, must exercise the right within a reasonable time.

Where parties agree to rescind a sale once made and perfected without fraud, the same formalities of delivery, etc., are necessary to revest the property in the original vendor, which were necessary to pass it from him to the vendee. A contract required by law to be in writing cannot be dissolved by verbal agreement.

Tender.—A tender of payment does not bar, or extinguish the debt; for the debtor is still liable to pay it, but it bars the claim to subsequent damages, interest and costs of defense against the plaintiff. A debtor should tender the full amount of the debt with the interest and costs which have accrued.

Damages.—The general rule of law respecting the measure of damages is, that where an injury has been sustained, for which the law gives a remedy, that remedy shall be commensurate with the injury sustained.

## HOW A CONTRACT SHOULD BE WRITTEN

Pen and Ink Should Be Used in writing a contract, but the use of a pencil will not render the contract invalid. The contract should be written in plain and unequivocal language, and the law does not in general require a formal contract drawn up with technical precision.

The Contract Should Be Dated, and care should be taken that the date be not a Sunday or a legal holiday, for in some States that would invalidate the contract.

Any Erasures or Interlineations made in the body of the contract should be specified in the margin or at the bottom as having been made before the contract was signed.

Any Material Alteration in the contract after it is signed, if made by a party to the contract without the consent of the other party will discharge the contract.

Contracts should be prepared and signed in duplicate, triplicate, etc., according to the number of persons concerned in them. Each party should be furnished with a copy.

It is the presumption of the law that a person in making a contract intends to bind not only himself but his legal representatives. Such representatives may therefore sue or be sued on a contract, although not named in it.

Letters May Constitute a Contract.—If a letter containing an offer is answered by another, accepting it, the two letters taken together constitute the written contract. If an order for goods is sent and filled it is a written contract as far as the writer is concerned, but not as to the other party. A telegram in the same way may be a written contract.

#### General Form of Contract

CONTRACT, made and concluded this first day of June, A. D. 1911 by and between John Jones, of the city of Springfield, county of Sangamon, and State of Illinois, party of the first part, and Samuel Smith, of the same

place, party of the second part, in these words: The said party of the second part contracts and agrees to and with the said party of the first part, to [here insert what is to be done]; and the said party of the first part contracts and agrees to pay unto the said party of the second part, for the same, the sum of fifty dollars, lawful money of the United States, as follows: the sum of twenty-five dollars when [here state the contingency on which the first payment is to be made], and twenty-five dollars when [here state the other contingency].

In witness whereof, the parties to these presents have hereunto set their hands and seals, the day and year first above written.

> JOHN JONES. [SEAL] SAMUEL SMITH. [SEAL]

#### Contract to Build

This AGREEMENT, made the tenth day of June, A. D. 1911, between John Doe, of the city of Bloomington, in the county of McLean, and State of Illinois, party of the first part, and Richard Roe, of the same place, party of the second part,

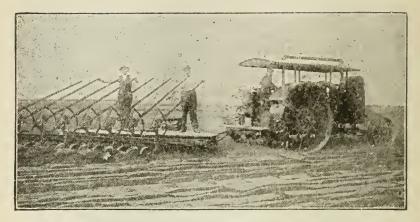
Witnesseth, that the said party of the first part, for the consideration hereinafter mentioned, agrees to erect and build for the said party of the second part, a dwelling-house on the lot of land, numbered 91 Oak street, in the city of Bloomington aforesaid, and to furnish all the materials and perform all the work necessary to complete the same agreeably to the accompanying plans and specifications signed by the parties; and to deliver the said building, finished in every respect, to the said party of the second part, on or before the .... day of ...... next.

In consideration whereof, the said party of the second part agrees to pay to the said party of first part, the sum of one thousand four hundred dollars (\$1,400.00), as follows:—\$200 when the cellar is completed, \$200 when the frame is erected, \$200 when the outside is shingled and clapboarded \$200 when the lathing is completed, and \$600 when the building is finished; which sums shall be in full of all his claims and demands against the party of the second part, except as hereinafter provided.

And it is further agreed, that the said party of the second part may modify the before-mentioned specification, in any particular, without impairing its validity, or the validity of this contract in other respects;—provided that the sum to be allowed to either party for such alterations shall have been agreed upon by the parties hereto, and a full statement of the same made in writing, and signed by them, before the work to be affected by the change is commenced.

In witness whereof we have hereunto set our hands and seals, on the day and year first above written.

JOHN DOE.	[SEAL]
RICHARD ROE.	[SEAL]



45-HORSE POWER TRACTOR PULLING 8, 14-INCH PLOWS

## Contract for Hiring a Farm Hand

KNOW ALL MEN BY THESE PRESENTS:

That Walter A. Clyde agrees to work faithfully for Wm. R. Manbeck, as a general laborer on his farm, and to do any work that he may be called upon to do in connection therewith, in the township of Lisle, County of Dupage, and State of Illinois, for the period of one year, beginning the first day of February next, 1907, for the sum of Thirty Dollars per month.

In consideration of the services to be performed, the said Wm. R. Manbeck agrees to pay Walter A. Clyde Thirty Dollars per month.

In witness whereof, the said parties have hereunto set their hands this first day of January, 1911

WALTER A. CLYDE. WM. R. MANBECK.

STOTE.—The above is a simple form of contract, and is legal and binding on both parties in any state and territory in the Union. Why don't farmers put their contracts in writing instead of having simply a verbal agreement? It would save argument, dispute, hot blood, and many times save trouble and lawsuits.

## Contract with a Clerk, or Workman

This Agreement, made this first day of January, A. D. 1911, by and between James Freeman, of the city of Chicago, county of Cook, and State of Illinois, party of the first part, and Alfred Willis, of the said city, county, and State, party of the second part,

Witnesseth, that the said Alfred Willis has agreed to enter the service of the said James Freeman as a clerk (or Journeyman) and promises faithfully, honestly and diligently to give and devote to him his time and labor as aforesaid, for the space of three years, from the first day of January, A. D. 1911.

In consideration whereof, the said James Freeman agrees to allow, and pay to the said Alfred Willis the sum of twelve hundred dollars (\$1200.00) per annum, in equal payments of one hundred dollars on the first day of each and every calendar month of the year, the first payment to be made on the first day of February, 1904.

Witness our hands,
JAMES FREEMAN.
ALFRED WILLIS.

#### Contract to Cultivate Land on Shares

This Agreement, made this first day of February, A. D. 1911, between Chas, N. Rohr, of the town of Colfax, county of Clinton, State of Indiana, and Henry Reamer, of Linden, county of Montgomery, State of Indiana, party of the second part.

Witnesseth that the said Chas. N. Rehr will, on or before the first day of March, break, properly prepare, and sow with wheat the forty acres belonging to, and lying north of the dwelling-place of the said Henry Reamer, in the town of Linden.

That one-half of the seed wheat shall be found by said Henry Reamer. That when said crop is in proper condition the said Chas. N. Rohr will cut, harvest, and safely house it in the barn of Henry Reamer. That he will properly thresh and clean the same. That he will deliver one-half of said wheat to the said Henry Reamer at his granary, on or before the fifteenth day of November. 1911.

Witness our hands and seals.

CHAS. N. ROHR. [SEAL] HENRY REAMER. [SEAL]

Signed, sealed, and delivered in presence of WM. Myers, Fred Hillman.

# ONE HUNDRED FACTS AND FORMS OF PROMISSORY NOTES

A Negotiable Note is a positive promise in writing to pay to a person therein named or his order, or to him or bearer, a certain sum of money, at a specified date, or within a time that is certainly ascertainable.

A Note Promising to Pay "At Sight" or "On Demand" is negotiable, for it is presumed that the party interested will see that sight is given or demand made.

If No Time of Payment Is Specified, "on demand" will be presumed to be intended.

Parties to a Note.—The person who promises is called the maker, and the one to whom the promise is made is called the payer. One who transfers a note to another by indorsing his name on the back is called an indorser, and the person to whom the note is transferred is called the holder.

Negotiation.—A note is negotiated when it is transferred from one person to another in such manner as to constitute the transferree the holder thereof; if payable to bearer it is negotiated by delivery; if payable to order it is negotiated by the indorsement of the holder, completed by delivery.

Transfer after Maturity —A note may be transferred as well after maturity and in the same manner as before maturity, but the purchaser takes it at his own risk—It is subject in his hands to any defenses that may have existed against it in the hands of one holding it when it became due.

Holders in Good Faith.—A purchaser or holder of a note or other negotiable instrument who has acquired it in good faith, for a valuable consideration, in the ordinary course of business, when it is not overdue, without notice of dishonor, and without notice of facts which impeach its validity, has a title unaffected by those facts, and may recover on the instrument, even though it was without consideration between the parties originally, was subsequently released or paid, or was originally obtained by fraud, theft or robbery; but

In Case of Fraud, Theft or Robbery, if the instrument had never been given force by the maker by delivery and he was not guilty of negligence, there could be no recovery; in such case the note would never have had any legal existence. But the slightest negligence renders the maker liable, for instance, if the maker of a note after completing it retains it in his posses sion, no matter how securely, he is liable to a holder in good faith, or, as he is commonly termed, a bona fide holder, although it was placed in circulation through fraud, theft, or robbery.

Where a Holder in Good Faith Is Not Protected.—The defenses against which a bona fide holder is not protected are: 1. In

capacity of the maker of a note to contract; as where he is an infant, or a lunatic, or a person under guardianship. 2. The interdiction of a statute; as where a statute renders the contract void, for gambling or other illegality. 3. Where the party has never in fact signed the note as it stands; as where it was forged, or where it was subsequently altered, without the maker's consent or fault. 4. Where the maker was misled into signing something he was not intending, through imposition, and without negligence on his part, or where a person who is unable to read, or is blind, has a note falsely read to him, and he signs it believing it to have been correctly read, he will be protected. But where a person of ordinary faculties and knowledge is betrayed into signing a note, believing it an instrument of a different kind, he will be bound to bona fide holders, unless he has been free from negligence. If the maker with reasonable caution might have detected the fraud, the note will be good with a bona fide holder.

A Note Executed Under Duress—that is, under such fear or compulsion as to overcome the free agency of a reasonably firm man—will not be good in the hands of a bona fide holder; for there was no consent and no fault of the maker.

Uncompleted Notes.—If a note is executed and delivered with the amount left blank, the parties who sign or indorse it will be bound to a bona fide holder for any amount that may be filled in.

If a Party Entrusts His Signature on a Blank Paper to another to fill in some note, he will be bound to a bona fide holder though the other fills in an entirely different note than agreed. But if a person writes his name on a blank paper without any intention of having it filled out, and another obtains it and writes a note above the name, it will not be binding even in the hands of a holder in good faith.

Liability of Indorsers.—All the persons who have indorsed a note are liable for the amount due; but only one satisfaction can be recovered. If one indorser is obliged to pay the debt he can look to the others for their proportion.

An Indorser May Avoid Liability by writing "without recourse" on the back of the note with his signature.

To Make the Indorser of a Note Responsible, for its payment, the lawful holder must use due diligence by the institution and prosecution of suit against the maker thereof.

Protest.—A protest of a note is a formal statement by a notary that the note was presented for payment and payment refused. When a note is not duly paid on presentation, it is said to be "dishonored" and is taken to a notary public, who again presents it, and, if not paid, he notes its non-payment, and afterwards draws out a formal protest, that legal proceedings may be taken for recovering the amount due.

Notice of Protest.—The holder of a note may give notice of protest either to all the previous indorsers or only to one of them; in the latter case he must select the last indorser, and the last must give notice to the last before him, and so on.

Where notice of protest is duly addressed and deposited in the postoffice, the sender is deemed to have given due notice, note withstanding any miscarriage in the mails.

Demand and Payment.—Notes payable on demand must be presented for payment within a reasonable time, in order to hold indorsers.

Where Days of Grace are Allowed by statute on notes, they are not considered due until the expiration of the days of grace. If a note is presented and payment demanded on the last day of grace, and payment refused, the maker is in default, and notice of dishonor may forthwith be given to the indorser. For days of grace allowed by the statutes of different States, see *Interest Laws and Statutes of Limitation*.

A Note Made Payable at a Bank and held there for payment until the usual hour for closing, need not be presented to the maker in person to bind the indorser. It may be protested, as in the case of drafts, immediately on the close of bank hours. Payment must be immediately demanded of the indorser if he resides in the same place; if he is a non-resident he must be notified at once by letter.

Presentment Not Necessary to Render Maker Liable.—Presentment for payment is not required in order to charge the maker of a note.

Sundays and Holidays — When the day of maturity falls upon Sunday or a legal holiday the note is payable on the next succeeding business day.

Place of Demand.—Where place of payment is specified in a note demand should be duly made at that place.

By Whom Demand May Be Made.—The holder of a note or any one acting for him may make the demand for payment and send notice of dishonor to the indorsers. Usually the holder or his agent notifies all the parties on the note. This is the most business-like, as well as the most prudent way, as it renders all parties responsible to him, and each responsible to each other in their order.

Extending Time of Payment by the holder releases the indorsers of the note, unless consent to such extension has been given by the indorsers.

Lost Notes.—If the maker should refuse to pay a note which has been lost, he may by law be compelled to pay it, but it would be necessary for the party collecting it to give bend, to protect the maker from all further claims, on account of the lost paper.

Proof Required.—It is necessary to prove that the note has been given by a certain party or parties, and up to date not paid. The maker of the note can compel the holder of the same to give evidence that the amount promised therein has not been paid.

The Finder of a Note, as of all other property, must make reasonable efforts to find the owner, before he is entitled to appropriate it for his own purposes. If the finder conceal it, ho is liable to the charge of larceny or theft.

A Note Destroyed by Fire can be collected by proof of loss.

Interest.—A note which does not state on its face that it bears interest, will bear interest only from maturity.

If the Words "With Interest" are Included in a Note it draws the legal rate of interest from the date of making.

If the Note is to Draw a Rate of Interest Higher than the Legal, but not higher than the statute of the State allows, the rate of interest must be specified.

Death of a Holder.—After the death of a holder of a negotiable note, his executor or administrator may transfer it by his indersement.

When Right of 'Action Expires.—The statute of limitations begins to run from the day the right of action accrues. See Interest Laws and Statutes of Limitation.

#### ALL THE DIFFERENT FORMS OF NOTES

# Form of Non-negotiable Note

\$100.00 Woodstock, Ill., June 9, 1911.

Thirty days after date I promise to pay James Jones One Hundred Dollars, value received.

JOHN DOBSON.

# Negotiable Without Indorsement

\$100.00 Madison, Wis., June 1, 1911.

Sixty days after date I promise to pay John M. Smith or bearer, One Hundred Dollars, value received.

GRANT WHITE.

# Negotiable by Indorsement

\$100.00 Omaha, Neb., March 1, 1911.

Ninety days after date I promise to pay to George Nelson or order, One Hundred Dollars, value received.

RICHARD MILLS.

# Payable at Bank

\$100.00 Chicago, Ill., June 2, 1911.

One year after date, for value received, I promise to pay Oliver Brown or order, at the First National Bank, One Hundred Dollars, with interest at six per cent per annum.

CHARLES JOHNSON.

#### On Demand

\$50.00 Denver, Colo., January 2, 1911.

On demand, for value received, I promise to pay to the order of John Riley, Fifty Dollars, with interest.

EDWARD JAMES.

#### Accommodation Note

[N. B.—The maker of an accommodation note (one for which he has received no consideration, having lent his name or credit for the accommodation of the holder) is not bound to the person accommodated, but is bound to all other parties, precisely as if there was a good consideration.]

\$100.00 Toledo, O., March 10, 1911,

Sixty days after date I promise to pay to the order of Almer Wilson, One Hundred Dollars, at the First National Bank, without defalcation.

Credit the drawer, \( \) OWEN YATES.

ALMER WILSON.

#### To One's Own Order

\$100.00 Memphis, Tenn., April 3, 1911.

Sixty days after date I promise to pay to my own order, One Hundred Dollars, value received. Interest at seven per cent.

MARION ADAMS.

## By Married Woman

\$200.00 Rochester, N. Y., June 9, 1911.

For value received, I promise to pay John Jackson, or order, ninety days after date, Two Hundred Dollars, with interest. And I hereby charge my individual property and estate with the payment of this note.

(Mrs.) Mary H. Jones.

## By Person who Cannot Write

\$50.00

Alton, Ill., June 8, 1911

For value received, I promise to pay to the order of William Warren, Fifty Dollars, with interest at slx per cent.

EDWIN MORRIS, Witness

his Louis X Barber mark.

# Payable in Merchandise

\$100.00

Springfield, Mass., June 3, 1911.

For value received, I promise to pay Daniel Ward, or order, One Hundred Dollars in merchantable wheat, at the current price.

JASPER NOYES.

#### Collateral Note

\$300.000

Three Oaks Mich., June 1, 1911

Sixty days after date I promise to pay to the order of John Jacobson, Three Hundred Dollars, without defalcation, for value received. Interest at six per cent.

Having deposited United States Bonds of the nominal value of Four Hundred Dollars, which I authorize the holder of this Note, upon the non-performance of this promise at maturity, to sell, either at public or private sale, without demanding payment of this Note or the debt due thereon, and without further notice, and apply proceeds, or as much thereof as may be necessary to the payment of this note, and all necessary expenses and charges, holding myself responsible for any deficiency.

MARTIN FIELD.

## Judgment Note-Common Form

\$100.00

New York, Jap pary 1, 1911.

Three months after date, I promise to pay Paul Jones, or order, One Hundred Dollars, with interest at the rate of seven per cent per annum, from maturity until paid, without defalcation. And I do hereby confess judgment for the above sum, with interest and costs of suit, the release of all errors, and waiver of all rights to inquisition and appeal, and to the benefit of all laws exempting real or personal property from levy and sale.

LOUIS MARX. [SEAL]

# Judgment Note-"Iron-Clad" Form

\$500.00

Tacoma, Wash. June 2, 1911.

One year after date, for value received, we promise to pay to the order of John L. Routt, Five Hundred Dollars, negotiable and payable at the First National Bank of Tacoma, without defalcation or discount, with eight per cent interest per annum from date until paid, both before and after judgment, payable in U. S. gold coin; and if suit be instituted for the collection of this note we agree to pay Fifty Dollars attorney's fee. If the interest be not paid as herein stipulated, the legal holder of this note may declare the principal due, and proceed by law to recover both principal and interest.

HENRY SMITH, JOHN SMITH.

Note-For Mortgage Note see page 238.

#### Judgment Note, with Waiver and Power of Attorney

\$600.00

New York, June 1, 1911.

Two months after date, I promise to pay to the order of William Eddy Six Hundred Dollars, at the National Park Bank, for value received, with interest at seven per cent per annum, from maturity until paid.

EDWIN LITTLE. [SEAL]

KNOW ALL MEN BY THESE PRESENTS:

That I, the undersigned, am justly indebted to William Eddy, upon a certain promissory note, of even date herewith, for six hundred dollars, value received, with interest at the rate of seven per cent per annum, from maturity until paid, and maturing August 1st, 1911.

Now, therefore, in consideration of the premises, I do hereby make, constitute, and appoint John Bright, or any attorney of any court of record, to be my true and lawful attorney, irrevocably for and in my name, place, and stead, to appear in any court of record, in term time or in vacation, in any State or Territory of the United States, at any time after said note becomes due, to waive the service of process, and confess judgment in favor of the said William Eddy, or his assigns, upon said note, for the amount thereof and interest thereon, together with costs and twenty dollars attorney's fees; and also to file a cognovit for the amount thereof, with an agreement therein, that no proceeding in error or appeal shall be prosecuted, or bill of equity filed to interfere in any manner with the operation of said judgment, and also to release all errors that may intervene in the entering up of said judgment or issuing execution thereon; to waive all benefits which I may be entitled to by virtue of any homestead, exemption, appraisement, or valuation law, now or hereafter in force, wherever such judgment may be entered or enforced, hereby ratifying and confirming all that my said attorney shall or may do, by virtue hereof.

Witness my hand and seal this 1st day of June A. D. 1911.

EDWIN LITTLE. [SEAL]

#### Joint Note

\$200.00

Cairo, Ill., March 30, 1911.

Two months after date, we promise to pay to the order of Albert Sloan Two Hundred Dollars, value received.

JACOB SCOTT, JAMES ATKINS.

#### Joint-and-Several Note

\$500.00

Newark, N. J., March 6, 1911

Six months after date, for value received, we jointly and severally promise to pay Hiram Davids or order, at the First National Bank, Five Hundred Dollars, with interest.

RICHARD MARK, JAMES HACKETT.

Example of How This Note Showle Be Written.

#### INDORSEMENTS OF NOTES

Definition.—An indorsement is a writing on the back of a note or other written instrument.

What is Sufficient.—Though it is usual and better to write the indorsement in ink on the back of a note, it is legally sufficient if written with either pen or pencil upon any part of the instrument, or upon a paper attached thereto. The signature of the indorser, without additional words, is a sufficient indorsement.

Kinds of Indorsements.—An indorsement may be either special or in blank, and it may also be either restrictive, qualified, or conditional.

An Indorsement in Blank specifies no indorsee, and an instrument so indorsed is payable to bearer, and may be negotiated by delivery. (See Form 1.)

A Special Indorsement (sometimes called a *full* indorsement) specifies the person to whom or to whose order the instrument is to be payable; and the indorsement of such indorsee is necessary to the further negotiation of the instrument. (See Form 2.)

A Qualified Indorsement constitutes the indorser a mere assignor of the title to the instrument. It may be made by adding to the indorser's signature the words "without recourse," or any words of similar import. Such indorsement does not impair the negotiable character of the instrument. (See Form 3.)

A Conditional Indorsement is one that involves some condition. A party required to pay the instrument may disregard the condition, and make payment to the indorsee or his transferee, whether the condition has been fulfilled or not. But any person to whom an instrument so indorsed is negotiat d will hold the same, or the proceeds thereof, subject to the rights of the person indorsing conditionally. (See Form 4.)

A Restrictive Indorsement expressly confines the payment to some particular person or purpose. (See Form 5.)

Partial Payments.—When money is received on a note, the amount and date of receiving should be plainly written on the back of the paper. (See Form 6.)

## FORMS OF INDORSEMENTS

## Indorsement in Blank

John Smith			

FORM 1

# BE CAREFUL ABOUT INDORSING NOTES

# Special Indorsement

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Pay to the order of James Hill. John Smith.		

FORM 2

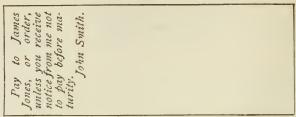
# BE CAREFUL ABOUT INDORSING NOTES

# Qualified Indorsement

	_
Pay to John Jay, or order, without recourse. John Smith.	

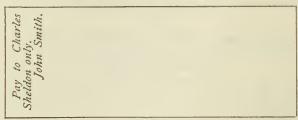
FORM 3

#### Conditional Indorsement



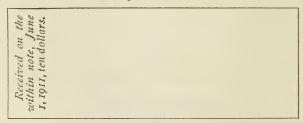
FORM 4

#### Restrictive Indorsement



FORM 5

# Partial Payment Indorsement



FORM 6

An Order is a written request or direction for the payment of money or delivery of goods to a person therein named, the same to be charged to the person making the request.

Orders for the payment of money are negotiable if made payable to order or to bearer, but the person on whom they are drawn is not under obligation to pay them, unless they have been accepted, for an order partakes of the nature of a draft.

#### FORMS OF ORDERS

#### For Money

\$500.00 Chicago, Ill., March 10, 1911.

Mr. Richard Foss: Please pay to William Mason, or bearer, Five Hundred Dollars, on my account.

Thomas Fell.

# For goods to Value of Certain Amount

\$100.00 Columbus, O., Apri 1 1911.

Messrs. Bronson, King & Co.: Please deliver to the bearer, David Swing, such goods as he may desire, to the value of One Hundred Dolars, and charge same to my account.

George H. Thomas.

#### For Goods Stored

Richmond, Va., June 1, 1911

Messrs. Smith, Jones & Co.: Please deliver to the bearer, E. H. Var Oven, Six Barrels of Apples, stored by me in your warehouse.

J. L. SPALDING.

## DUE BILLS

A Due Bill is a formal written acknowledgment that a certain amount is due to the person therein named. It may be payable in money or in merchandise. It is not transferable, and draws no interest unless specified therein.

#### FORMS OF DUE BILLS

# Payable in Money

\$50.00 Racine, Wis., June 2, 1911.

Due William Macey, on demand, Fifty Dollars, value received.

JOHN KNOX.

## Payable in Merchandise

\$100.00 Indianapolis, Ind., June 2, 1911

Due Charles H. Adams, for services rendered. One Hundred Dollars

Due Charles H. Adams, for services rendered, One Hundred Dollars, payable on demand, in merchandise, at my store.

WILLIAM JOHNSON.

# RECEIPTS

## RULES FOR WRITING ALL KINDS OF RECEIPTS

What a Receipt Is.—A receipt is an acknowledgment in writing, signed by the person receiving, that certain personal property (money or goods, or both), has been received.

A Complete Receipt requires the following statements: That a payment has been received: the date of the payment; the

amount or article received; from whom received, and if for another on whose behalf payment is made; to what debt or purpose it is to be applied; by whom received, and if for another, on whose behalf it was received.

Kinds of Receipts.—Receipts are divided generally into three kinds: Receipts in Full, Receipts on Account, and Receipts to

Apply on Particular Accounts.

Every Receipt Should Show whether payment is made in full, on account, or on what particular account where there are more than one between the persons.

How an Agent Should Sign.—An agent should sign his principal's name and then write his own name underneath, prefixing the word "by," thus:

John Smith, [principal] by Thomas Jones, [the agent.]

Receipt for a Note Not Necessary.—It is not necessary to take or give a receipt when a note is paid, as the instrument itself becomes a receipt.

Mistake or Fraud.—A receipt given under error or mistake of fact, or obtained through fraud, is void.

#### FORMS OF RECEIPTS

## Receipt in Full

Clinton, Ill., March 10, 1911
Received from Randolph Pike, Two Hundred and Fifty-three Dollars, in Full of All Demands.

CHARLES JOHNSON.

## Receipt on Account

Davenport, Iowa, June 1 1911.

Received from Hiram Powers, One Hundred and Seventy-five Dollars, on account.

CLARENCE WHITE.

# Receipt on Particular Account

Carson City, Nev., June 1, 1911.

Received from Abner Oglesby, One Hundred and Ninety-five Dollars, to apply on hire of horse.

MARSHALL STRAIT.

## Receipt for Rent

Ottumwa Iowa, June 1, 1911.

Received of William Lawrence. Thirty Dollars, in full for rent of residence at 96 Adams Street for the month of May.

JAMES WALTERS,

Per WILLIAM STOUT, Agent.

## BUYING AND SELLING MERCHANDISE

## Legal Points for the Seller

Offer to Sell.—An advertisement or price list sent out by a wholesale merchant to a retail dealer offering goods for sale on certain terms is not such an offer as will become binding on acceptance. (Lincoln vs. Erle Preserving Co., 132 Mass., 129). The mere exposure of an article for sale with a certain price marked on it does not constitute an offer that will create legal relations between the tradesman and any person that may choose to tender him the price marked. And so where a traveling salesman submits his samples and prices to a dealer. This does not constitute an offer that will become binding by acceptance. It is a mere solicitation of an order. If the retail dealer gives the salesman an order, this constitutes on the part of the retail dealer an offer to buy certain merchandise on certain terms at a certain price, to be accepted or rejected by the firm which the salesman represents as it may see fit. (McKindley vs. Dunham, 55 Wis., 42).

resents as it may see fit. (McKindley vs. Dunham, 55 Wis., 42).

Revocation of Offer.—An offer to sell may be recalled or revoked at any time before its acceptance. But the revocation must be made known to the offeree before it has any effect. Therefore, if an acceptance be duly mailed, before any knowledge of a revocation, though one had been really sent, the sale is closed. It is well settled that even when on making the offer the offerer expressly promises to allow a certain time to the other party for acceptance, the offer may nevertheless be revoked in the interval, if no consideration has been given for the promise and provided that the revocation is duly communicated or brought to the knowledge of the other party before he has accepted the offer (Larmon vs. Jordan, 56 Ill., 204). A failure to comply with a condition of the offer as to the mode of acceptance, or an acceptance conditionally, on terms varying from those offered, will cause the offer to lapse, for this is, in effect, a rejection of the offer. For instance, a counter proposal to buy at a sum less than asked in the offer to sell amounts to a refusal of the offer, which thereby is terminated, and the party to whom it was made cannot afterwards hold the intended seller to the original offer. (Arthur vs. Gordon, 37 Fed. Rep., 558.)

Refusal to Receive Goods.—If the buyer unreasonably refuse to receive the goods, after due delay and proper precaution the seller may resell them and hold the buyer responsible for any deficit in the price (4 Bing., 722). After actual acceptance, goods received cannot be rejected; and while a buyer is not bound to accept a less quantity than ordered, he is bound by an acceptance of part of them. Mere receipt does not constitute acceptance; but delay in rejecting or acts of ownership will amount to such. The buyer, of course, has a reasonable time after a receipt to inspect and wiect the goods if they do not answer the description.

(Shields vs. Reibe, 9 Bradw., 598.) If goods are not according to contract, duty rests on buyer to notify seller of the fact within a reasonable time. (Benj. on Sales, 690). The failure of a customer to repudiate a sale of stock made by his broker upon a stock exchange, immediately after it is reported to him, operates as a ratification, and precludes him from subsequently contending that the terms of the sale were unauthorized. (Clews vs. Jamieson, 182 U. S., 461).

Refusing to Sell.—A dealer has the right to refuse to sell to any particular individual in the absence of any illegal combination. (Locker vs. American Tobacco Co., 195 N. Y., 565).

Restraint of Trade.—Contracts between a manufacturer and all dealers whom he permits to sell his products, comprising most of the dealers in similar articles throughout the country, which fix the price for all sales, whether at wholesale or retail, operate as a restraint of trade, unlawful both at common law and as to interstate commerce, under the anti-trust act of July 2, 1890, even though such products may be proprietary medicines made under a secret formula. (Dr. Miles Medical Co. vs. John D. Park & Sons Co., 220 U. S., 373.)

Legal Points for the Buyer

Acceptance of Offer.—In order to constitute a sale there must be an absolute and unconditional acceptance of the offer to sell. For instance, where A wrote to B to send him six hogsheads of rum, and other things, B sent only three hogsheads, which were lost on the way, it was held to be no sale. (Bruce vs. Pearson, 3 Johns, 334). But written or spoken words are not necessary to constitute an acceptance. It may be implied from conduct, as where one person sends goods to another without any order and he receives and consumes them, knowing that the sender expects him to pay for them. (Wellauer vs. Fallows, 48 Wis., 105). A person is not bound to receive and pay for a larger quantity than

he orders. (Rommel vs. Wingate, 103 Mass., 227).

When Title Passes .- Where a merchant receives an order for a certain quantity of goods and actually charges the goods on his books, no title passes to any particular goods until they have been set apart, marked or in some way designated for the buyer; and this is so even though the order embraces the whole quantity the seller had of that description. (Benj. on Sales, 294). Where delivery of goods is made conditional upon payment of price, title does not pass until payment (Merchants' Exchange Bank vs. McGraw, 59 Fed., is made. 972). There is a sufficient change of possession of personal property in the possession of a bailee to support a sale as against a claim of the seller's creditors, where the bailee, at the request of both seller and buyer, consents to hold the property for the latter. (Hendrie vs. B. Mfg. Co., 56 Pac., 1067). Sale and Return.-In this class of sales the title and risk immediately pass to the purchaser. (Dearborn vs. Turner,

16 Me., 17). If the right of return is not duly exercised and the property is retained, the right is forfeited and the sale lecomes absolute. (Ray vs. Thompson, 12 Cush., 281). Where the seller accepts a return of the goods without objection, his consent to a rescision may be implied therefrom. (Greder vs. Stahl, 115 N. W., 1129).

Cash or Credit.-Where goods are sold without expectation of immediate payment, it is a sale on credit, though no period, whether a day or a year, is fixed. (Arnstedt vs. Sutler, 30 Ill., 164). The presumption of an agreement for cash payment fails where the dealing is pursuant to a previous general understanding that credit shall be given and in accordance with previous dealings on that basis. (Kahn vs.

Cook, 22 Ill. App., 559).

Unsatisfactory Goods.—In every contract to supply goods of a specified description which the buyer has no opportunity to inspect, the goods must not only in fact answer the specified description but must also be salable or merchantable under that description. (White vs. Miller, 71 N. Y., 118). Where the goods are rejected by the buyer on the ground that they are unsatisfactory, freight charges paid by him are recoverable. (Virginia-Carolina Lumber Co. vs. Eisinger, 29 App. Cas. (D. C.), 531).

Fraud.-If a buyer fraudulently misstates the facts, material facts, the sale is voidable. False statements as to what property he owns, what debts he owes, what amount of business he is doing, that his property is unincumbered, etc., render the sale voidable. Cary vs. Hotailing, 1 Hill, 311). The mere fact that the purchaser of goods fails to disclose the fact that he is insolvent does not amount to fraud if he intends to pay for them and is not asked as to his financial condition. (Talcott vs. Henderson, 31 Ohio St., 162). If, however, at the time of the purchase he does not intend to pay, he is guilty of fraud, for he impliedly represents that he does intend to pay; and, if he has no reasonable expectation of being able to pay, it is equivalent to an intention not to pay. (Edson vs. Hudson, 83 Mich., 450).

## BANKS AND BANKING

Brief History of Banks.—The name "bank" is derived from the Italian word banco, a bench; the early Italian banks being in the habit of transacting their business on benches or tables in the market-places of the principal towns.

The First Banking Institution of Importance was the Bank of Venice, which was established in 1171. The Bank of Genoa was projected in 1345, but did not go into full operation until 1407. The Bank of Barcelona was established in 1401, and was the first to institute the system of negotiation of bills of exchange. The

Bank of Hamburg was established in 1619, the Bank of Rotter-dam in 1635, the Bank of Stockholm in 1688, the Bank of England in 1694, the Banks of Berlin and Breslau in 1765, and the Bank of North America (by Robert Morris, at Philadelphia) in 1782.

The National Banking System of the United States was organiezd in 1863, prior to which all banks of issue and depost were chartered by the several States, and in 1857, 1,400 of these State institutions were in existence.

Different Classes of Banks.—Banks are divided generally into five classes: of deposit, of discount, of circulation, of exchange, and savings banks. Taking them separately, they may be characterized as follows:

Banks of Deposit receive money to keep for the depositor until he draws it out, by checks payable to himself or to others. A person who desires to make a single deposit, to be withdrawn in the same amount, receives from the bank a certificate of deposit. This is payable at any stated time or on demand, and may bear interest.

Banks of Discount are occupied in discounting promissory notes and bills of exchange, or in lending money on security. Almost all banks have a department embracing these features.

Banks of Circulation issue bills or notes of their own, intended to be the circulating currency or medium of exchange, instead of gold and silver. The notes or bills of the National Banks are guaranteed by the Government, which holds as security bonds belonging to the bank to a still larger amount than their issue of bills, or, as commonly termed, their "circulation." The Government also retains a five per cent fund for immediate redemption.

Only the National Banks issue a circulation, because a tax of ten per cent would be levied upon any kind of circulating notes other than those issued by the Government.

Banks of Exchange receive money on deposit, and, instead of paying it back to the depositors, make payments by drafts on other banks. They keep money on deposit at the principal trade centers; thus money can be sent to different points at small expense and without risk. They charge one who desires to remit, a small amount for their services, and sell him their draft on the place to which the remittance is to be sent.

Savings Banks receive in trust or on deposit small sums of money at a moderate rate of interest. These sums generally are

the savings of laborers from their earnings, and are thus deposited for profit and safe keeping.

At the end of a certain fixed time the interest due is added to each depositor's account. These interest terms vary with different banks, being one, three, or six months.

Each depositor is furnished with a book showing his depositation time to time and what he has drawn out. When settling, the depositor is allowed no interest on the last deposit if it has not been in the bank for a full interest term.

## NATIONAL BANKS

Why So Called.—In 1863 a national law was passed in accordance with which banks might be organized and conducted alike throughout the country. Banks formed under that and subsequent laws of Congress are called National Banks, for the reason that they are organized under national laws and their notes secured by national obligations.

How Organized.—Any number of persons, not less than five can enter into articles of association for the formation of a national bank. Such articles must specify in general terms the object for which the association is formed, and are signed by those associating and forwarded to the Comptroller of the Currency.

Requisite Amount of Capital.—The capital stock of a national banking association is divided into shares of \$100 each, and in cities of 50,000 population or over, no association can be organized with a less capital than \$200,000. In cities and towns of 6,000 population, and up to 50,000, a capital of \$100,000 is required; in towns of from 3,000 up to 6,000, \$50,000; and in towns not exceeding 3,000, \$25,000.

## FEDERAL RESERVE BANKS

Banking Regions and Federal Reserve Cities.—Under provisions of the new Banking and Currency System established by the "Federal Reserve Act" of December 23rd, 1913, the principal features of which are given herein at page 462, the United States has been divided into twelve banking regions or districts.

The Act directs the reserve bank organization committee to "designate not less than eight nor more than twelve cities

to be known as federal reserve cities," to "divide continental United States, excluding Alaska, into districts, each district to contain only one of such federal reserve cities," and to apportion the districts "with due regard to the convenience and customary course of business." The cities designated by the committee as Federal reserve cities are Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas and San Francisco.

Principal Factors Governing the Selection of Federal Reserve Cities.—The principal factors which governed the committee in determining the respective districts and the selection of the cities designated as Federal reserve cities were:

First: The ability of the member banks within the district to provide the minimum capital of \$4,000,000 required for the Federal reserve bank, on the basis of 6 per cent of the capital stock and surplus of member banks within the district.

Second: The mercantile, industrial, and financial connections existing in each district and the relations between the various portions of the district and the city selected for the location of the federal reserve bank.

Third: The probable ability of the Federal reserve bank in each district, after organization and after the provisions of the Federal Reserve Act shall have gone into effect, to meet the legitimate demands of business whether normal or abnormal, in accordance with the spirit and provisions of the Federal Reserve Act.

Member Banks.—The Act makes it compulsory upon all National Banks to subscribe to the capital stock of the Federal reserve bank of their respective districts and become "member banks" of the system. State Banks may, but are not required to, become member banks. To be eligible they must comply with requirements placed upon National Banks, as to sufficient capital, reserve requirements, limitation of liability and regulation of business, and as to examination and report.

The main object of the Federal reserve banks is to establish a market where National Banks may be able to rediscount their bills or to obtain special loans in a manner similar to that of the joint stock banks in France and Germany, and also to meet the demand for emergency currency during the

seasonal periods of the year.

Banking Business.—The business of panking consists in dealing in money and credit. The following are some of the branches of this business: Collection, Discount, Deposits, Circulation, Exchange, Loans, Remittance, Investment and Agency. Some of these branches have already been considered under the sub-heading Different Classes of Banks.

BANKING 147

Collection is the opposite of remittance. Banks receive drafts or checks payable at distant points. These are presented at the places of payment. There are left with the banks, for collection previous to maturity, notes, time drafts, and bills of exchange.

Discount is paying to a person the proceeds of a note or other paper not yet due, deducting from it the interest till maturity. As the sum received is not the full amount of the paper, the borrower really pays more than the nominal rate of interest. See Bank Discount.

Loans.—Bankers receive money not only for safe keeping, but they loan out the greater part of it at a higher interest than they pay their depositors. Loaning money is as much a part of their business as the receiving of deposits.

Investments.—With money not otherwise employed banks purchase various securities, both for the income to be derived from them and for the profit to be realized from their sale. The chief object of a savings bank is the collective investment of small sums.

Agency.—Many banks act as financial agents for their customers, investing their money in various ways.

## Clearing Houses

The magnitude of the business of exchanges makes it necessary in large cities, where there are many banks, to have an establishment known as the clearing house, to which each bank connected with it sends every day in order to have its business with the other banks adjusted. Each bank in its daily dealings receives many bills of other banks, and checks drawn on them, so that at the close of the day's business every bank has in its drawers various sums due to it by other banks. It is, in like manner, the debtor of other banks which have received its bills and checks. These sums due by and to the banks among themselves are at the clearing house set off against each other and the balances paid or received.

## A Bank Account

Importance of Keeping.—The keeping of a bank account is a matter of great convenience as well as pecuniary benefit to business men and women. Where considerable business is done, money is constantly accumulating, which, when deposited in a reliable bank, is more secure from burglary than elsewhere. Sometimes money may be lost through robbery or failure of a bank, but of all losses to which business men may be exposed that by failure of banks is the least.

How to Open.—One wishing to open an account with a bank should have some one who is acquainted with the bank officials give him an introduction at the bank. If the bank cashier is satisfied that all is right, he will have the prospective depositor write his name in the "Signature Book," so it will be recognized by the bank officials when appearing on checks signed by the depositor He is then given a deposit ticket, and proceeds to make his first deposit.

## . The Deposit Ticket

The Deposit Ticket is a blank form which the customer fills out so as to show the date, the amount and kinds of funds deposited.

### DEPOSIT TICKET

Deposited in First National Bank By Wm. King		
Chicago, Feb. 1		
Currency	\$700 50 75 00 30 50 \$800 00	

## The Pass Book

If money is deposited in a bank to remain there for an indefinite time, the depositor receives a certificate of deposit, but if he wishes to draw out frequently the banker furnishes him a pass book in which are entered the date and the amount of deposits. The opposite page shows the amount drawn out. From time to time they are balanced, showing the amount of deposit there is in the bank.

Dr. Fir	rst Nationa	l Ban	k in ac	count with	Wm. King	cr.
" 15 " 20 March 2	To cash	700 0 450 0 200 0 \$2,250 0	0000	1911 Feb. 12 " 18 " 25 March 2	By check	\$ 250 00 300 00 450 00 500 00 750 00 \$2,250 00

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## The Check Book

The Check Book contains the blank orders or checks, with a margin on which to write date, amount and to whom the check is given. When filled out the check is taken to the bank, while the memorandum remains in the book.

No. 1.

Date, Feb. 12, 1911.

Favor of John Jones
for Merchandise.

\$250.000

No. 1.

Chicago, Feb. 12, 1911.

FIRST NATIONAL BANK

Pay to John Jones, or order, Two

Hundred and Fifty 305 Dollars.

\$250.00

Wm. King.

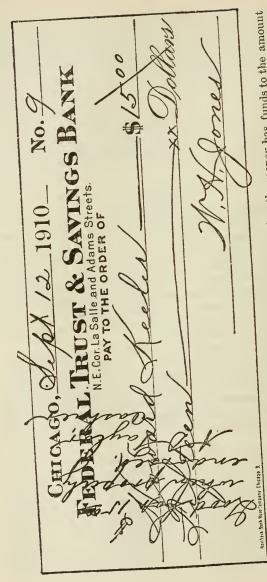
## Checks

A Written Order on the Bank directing a certain amount of money to be paid to a person named, or to his order, or to him "or bearer," or simpy to "bearer," is called a check. This is the simplest form of negotiable paper. A check requires no set form of wording; any properly dated demand upon a bank, by a depositor, correctly signed, is a check and will draw the money.

When Negotiable.—A check made payable to "bearer" is negotiable, and is payable to any one presenting it, and so is a check that is made payable to some one "or his order," after the payee has written his name upon the back.

Forged Checks.—Some forgers can imitate a signature so closely that even the one whose name is forged is not able to distinguish it from his own, and can only swear that he did not make out the check. The responsibility of detecting the forgery is thrown upon the teller. The bank pays every check at its own risk. The person whose name has been forged is not to rectify the forgery, because that would be shielding and encouraging crime.

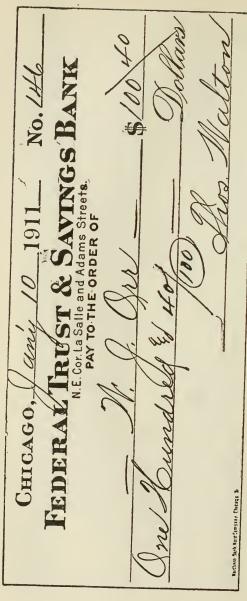
Raised Checks.—To alter the writing and the figures of a check so that it will call for more money than the drawer gave instructions to pay is called raising the check. To prevent this, care should be taken to always fill in the empty spaces with lines. Use words instead of figures. If a raised check is paid by the bank, it can only charge the depositor with the amount for which he himself made out the check, unless he was grossly negligent in giving the amount to be paid. The drawer must take reasonable precaution to protect his check from being raised.



mentioned to his credit in the bank, and the bank guarantees its payment. The bank officer writes across the face "Certified," also the date and his signature; or the words "Good, when properly Gertified Checks.—Certifying means that the person drawing the money has funds to the amount indorsed," and his signature.

## Raising a Check

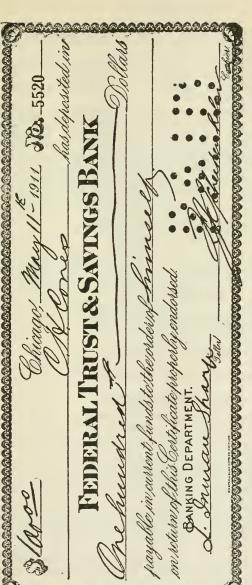
Hundred" before the word "Six" and adding "ty" to it, putting the figure '1" before the figure "6" and a We herewith show a form that could easily be raised to One Hundred and Sixty Dollars by writing "One cipher after it. In the same way it might be raised to "Ninety Six," 'Sixty" or "Sixteen" Dollars.



# Check Payable to "The Order of"

This is the safest form of check, A check payable to "Bearer" can be cashed by any one.

instead. To write a check properly, begin close to the left-hand end to write the amount, filling what space , or order," may have the word order struck out and "bearer" written may be left on the line with the amount of the cents, if any, and a stroke of the pen. The amount in figures should be written close to the dollar sign. A check payable to "John ---



# Certificate of Deposit

Certificates of deposit are given by banks for money deposited with them for a short time when the depositor has no regular account at the bank.

They may be endorsed and used as checks.

When strangers receive certificates of deposit the bank usually requires them to leave their signatures in order to insure payment to the proper persons, when the certificates are returned Always Keep the Stub of Your Check Book, and in issuing a check always fill the stub out first.

In Presenting a Check to the Bank for payment, always write your name on the back before handing it in.

Giving a Check is No Payment of an indebtedness unless the check is paid.

The Death of the Maker of a check before presentment to the bank renders the check null and void, but in some States the statute provides that a check may be paid by the bank within a limited time after the death of the maker.

Payment of a Check may be Stopped by subsequent order to bank by maker before presentment of check.

When Sending a Check Away from your own town or locality always have it certified, as this renders it easier for the person to whom you send it to get it cashed.

## OTHER FORMS OF CHECKS Payable to Bearer

\$250.00 Akron, O., March 4, 19—. Cleveland National Bank, pay to E. J. Williams, or bearer, Two Hundred and Fifty Dollars, R. M. Atwoop & Co.

## Payable to Order

\$125.40 St. Paul, Minn., June 1, 19—. Commercial State Bank, pay to R. L. Holcomb, or order, One Hundred and Twenty-five and 49/100 Dollars. W. H. UNGEP.

## Payable to Yourself

\$50.00 Frankfort, Ky., June 10, 19—. Frankfort Exchange Bank, pay to myself Fifty Dollars. E. J. Lang.

## INDORSING CHECKS

How Indorsement Should be Written.—Write the indorsement across the back, not lengthwise, of the check.

Each Successive Indorsement should be written under those that precede it.

In Depositing a Check, write across the back "For Deposit," and below this your name. Checks thus indorsed can only be deposited, and should they be lost on the way to the bank the finder cannot use them.

Merely Writing Your Name on the Back is a blank indorsement, and signifies that it has passed through your hands and is payable to bearer, any one into whose hands it may come.

In Order to Make Check Payable to some Particular Person, write: Pay to the order of (person's name), and sign your name.

Do not Send Away a Check Indersed in Blank, but make it payable to the person to whom you send it. Then if lost it cannot be paid to any one else.

A Person must Indorse his Name as it is Written in the check. A check drawn payable to W. King, cannot be indorsed Wm. King. If drawn payable to Rev. W. King, it should be so indorsed, as bankers are very particular to have the name of the payee as given on the face of the note exactly reproduced in the indorsement.

If the Spelling of the Name on the Face is Wrong, indorse it in that way and then write it underneath correctly.

Responsibility of Indorsers.—The following table shows the relative responsibility of each indorser. Each indorser is responsible to the one below him.

In a note.	In an unaccepted draft or uncerti- fied check.	In an accepted draft.	In a certified check.
1. Maker. 2. 1st Indorser. 3. 2nd Indorser. 4. 3rd Indorser. Etc.	1. Drawer. 2. 1st Indorser. 3. 2nd Indorser. 4. 3rd Indorser. Etc.	1. Acceptor. 2. Drawer. 3. 1st. Indorser. 4. 2nd Indorser. Etc.	1. The Bank. 2. 1st Indorser. 3. 2nd Indorser. 4. 3rd Indorser. Etc.

## FORMS OF INDORSEMENTS When Presented for Payment

.•		
King.		
14.		

## When Transferred

he order ross. V. King.		
Pay to the order of S. E. Gross. W. King.		

## When Deposited

0 .:		
deposit to W. King.		
deposit JV. Ki		
de, U		
ror		
cre		

## BANKING RULES

- 1. Make your deposits in the bank as early in the day as possible, and never without your bank book.
- 2. Always use the deposit tickets furnished by the bank. When checks are deposited, the banks require them to be indorsed, whether drawn to the order of depositor or not.
- 3. Do not allow your bank book to run too long without balancing. Compare it with the account of the bank.
- 4. Write your signature with the usual freedom and never vary the style of it.
- 5. Draw as few checks as possible; when several bills are to be paid draw the money in one check.
  - 6. Always keep your check book under lock and key.
- 7. In filling up checks do not leave space in which the amount may be raised. Always fill the space with a dash. Use words instead of figures.
- 8. If one who holds a check, as payee or otherwise, transfers it to another, he has a right to insist that the check be presented that day, or at farthest, on the day following.
- 9. If you wish to draw money from the bank on your own check, write: "Pay to myself." instead of writing your name in the body of the check.
- 10. If you write a check to a person who will have to be identified at the bank in order to receive payment, have him indorse the check and then beneath his signature write "Signature O. K.," and sign your name. This will enable him to draw payment on the check without further identification.

## DRAFTS

RULES FOR WRITING, ACCEPTING AND TRANSFERRING

What a Draft Is.—A draft is a written order by one person or firm upon another for the payment of a specified sum of money.

Names of Parties.—The one who writes the draft is called the drawer, the one on whom it is written is called the drawee, and the one to whom it is to be paid the payee.

When Payable.—Drafts may be made payable at sight, on demand, or at a certain time after date or after sight.

Negotiability.—Drafts are negotiable both before and after acceptance.

Drafts may be Drawn to One's own Order, and then indorsed in favor of the party to whom they are to be sent.

Acceptance.—By acceptance is meant the act by which a person, upon whom a draft is drawn, binds himself to pay it when due. This usually is done by writing the word "Accepted," together with the date, in red ink across the face of the draft and signing the acceptor's name below.

When Acceptance is refused, it is said to be dishonored, and the drawer and indorser are held liable for payment. The draft is then protested.

**Protest.**—A protest is a formal declaration made by a notary public, under his hand and seal, at the request of the holder, of non-acceptance or non-payment, and the parties liable are formally notified.

Drafts Drawn at Sight or on Demand are not presented for acceptance, but for payment only.

A Promise to Accept a Draft will be equivalent to an acceptance if it has given credit to the bill.

Any Material Alteration of a draft after it has been drawn or accepted makes it valueless.

Death of Drawee.—Should the person upon whom the draft is drawn die before it is accepted, it should be presented to his legal representatives.

Bank Drafts.—A draft made by one bank upon another is called a bank draft. This is the most common kind. (See page 159.)

In Buying a Draft at the Bank, it is always best to have it made payable to yourself, and then indorse it in favor of the person to whom you intend to transfer it. This gives you a good receipt for the money.

Drafts on Foreign Countries are called bills of exchange. (See BILLS OF EXCHANGE.)

## FORMS OF DRAFTS

## To One's Own Order

\$50.00 Lincoln, 1ll., Feb. 2, 1911.

Ten days after sight pay to my own order Fifty Dollars, and charge to
J. H. JONES.

To William Hill, Lincoln, Ill.

## Sight Draft

\$100.00 Davenport, Iowa, June 3, 1911.

At sight pay to the order of Henry Starr One Hundred Dollars, and charge to the account of Frank Lawler.

To William Dix,

Chicago, Ill.

## Time Draft

\$50.00 St. Joseph. Mich., June 1, 1911, At ten days' sight pay to the order of Warren Hazelteen at St. Joseph National Bank Fifty Dollars,

Value received.

CHAS. HUNTER.

To H. R. Moser, Lansing, Mich.

## Time Draft, Second Form

\$320.00 St. Paul, Minn., April 1, 1911.

Twenty days from date pay to J. R. Kotter, or order, Three Hundred and Twenty Dollars. Value received

To Wm. K. Asire.

St Paul, Minn.

## BILLS OF EXCHANGE

How Drawn.—Bills of exchange, as drafts on foreign countries are usually called, are drawn in sets of three, each one referring to the other two. They are alike, except that they are numbered first, second, and third. If the first, which is usually kept by the purchaser to be presented by himself for payment at the foreign bank, is lost, then the second or third, being sent by mail, may be used. The payment of one cancels the other two. To distinguish them from other drafts they are sometimes called foreign bills of exchange, and the others are sometimes called inland bills of exchange.

The bank selling a Bill of Exchange, having money deposited in a foreign bank, orders the bill cashed there. In this way travelers are saved the trouble and risk of carrying large amounts of money with them. Merchants engaged in foreign trade also find them very convenient, and make all their payments through Bills of Exchange.

# FEDERAL TEUST & SAVINGS BANK

Q CASHIER. No.7718 NOT OVER ONE HUNDRED SIXTY \$160\$ CHECAGO . MAY 141911 hunder de frot a NEW YORK. TO THE NATIONAL CITY BANK. PAY TO THE ORDER OF Restrict Best Abre Company: Chiego A.

## A Bank Draft

This is called a "New York draft," The cancellation mark shows it has been paid in New York and Drawn by a Chicago bank, in favor of James M. Harris, on a bank in New York. returned to the bank issuing it.

## SET OF FOREIGN BILLS OF EXCHANGE

FORM I

	Exchange ) for
	Lioo ) Ninety days after sight of this our Fir of Exchange (second and third of the same date and tens
	unpaid) pay to the order of Chas. Wilson One Hundre Pounds Sterling, value received, and charge the same to
	Henry Horman & Co.
	No. 642 To the Commercial Bank of Glasgow, \ No. 642
•	FORM 2
	Exchange ) for
	Lioo.) Ninety days after sight of this our Second of Exchange (first and third of the same tenor and day unfaid) pay to the order of Chas. Wilson One Hundre Pounds Sterling, value received, and charge the same to
I	Henry Horman & Co.
	No. 642 To the Commercial Bank of Glasgow, \ Glasgow, Scot. \
	Form 3
	Exchange Chicago, Ill., March 5, 1911.
	£100. Ninety days after sight of this our Thir, of Exchange (first and second of the same tenor and date un paid) pay to the order of Chas. Wilson One Hundred Pound Sterling, value received, and charge the same to
	Henry Horman & Co.
	No. 642 To the Commercial Bank of Glasgow, Scot.

## LETTERS OF CREDIT

A Letter of Credit is a letter from a bank or mercantile house addressed to its agents or correspondents elsewhere, requesting them to pay or advance money to the bearer of the letter.

How Secured.—The person who obtains a letter of this kind usually is required to deposit an equivalent sum with the person or firm from whom he obtains it, in money, bonds, mertgages or stocks.

A Copy of the Letter is also sent by mail to the person addressed, in which the bearer is so described that he may be recognized.

If the Letter is not Accepted by the person to whom it is addressed the bearer should at once notify the author and give the reason why it has not been honored.

Party Held Responsible.—The party whose signature the letter bears is held responsible for the amount involved, if the person to whom it is addressed accepts it.

## FORM OF LETTER OF CREDIT

350 Broadway, New York, Jan. 10, 1911

MESSIS, HAVART, REED & Co.,

London, Eng.

DEAR Sires: We take pleas re in introducing to you Mr. Chas. P. Hodder of this city, who visits lingland for the purpose of investing in property in the city or vicinity of London, and desires to open a credit with you of Fifteen Thousand Dollars. We hereby authorize you to honor his drafts to an amount not exceeding in the aggregate the above-named sum and charge the same to us.

The signature of Mr. Hodder accompanies this.

Yours very respectfully, FOSTER, WALKER & CO.

Signature of Chas. P. Hodder.

## Foster, Walker & Co.'s Letter Sent by Mail

350 Broadway, New York, Jan. 10, 1911.

MESERS. HAVART, REED & Co.,

London, ling.

Gentlemen: We have to-day granted a letter of credit on your house (as per enclosed duplicate) to Mr. Chas. P. Hodder for Fifteen Thousand Dollars.

Mr. Hodder is forty-five years of age, five feet ten inches tall, has a light bomplexion, light brown hair, and blue eyes.

Respectfully yours,

FOSTER, WALKER & Co.

## A GUARANTEE LETTER OF CREDIT

Jackson, Miss., March 9, 1916.

MR. WALTER COLESIAN.

Chicago, Ill.

DEAR SIR: Mr. Ira F. Van Arsdale, the bearer of this letter, is an extensive dealer in boots and shoes in this city, and is now about vitility your city for the first time, with a view of purchasing goods. We have reason to know the condition of his financial ability and his prompt. In meeting his liabilities. We therefore readily guarantee the payer and fary the best a that he may contract with your house not exceeding Tim Thousand Dollars.

Very respectfully.

MEYER, Sciritz & Co., 175 Moline t.

## The Letter Sent by Mail

175 Moline St., Jackson, Miss., March 9, 1916.

MR. WALTER COLEMAN.

Chicago, Ill.

DEAR SIR: We have to-day given a guarant - I therefore the upon you for Ten Thousand Dollars in merchandise. The bearer of our letter of credit is Mr. Ira F. Van Arsdale, an acquaintance of ours and a prominent merchant of this city.

Mr. Van Arsdale is thirty years old, six foot tall, has a dark complexion,

with dark hair and eyes.

We commend him to your kind consideration.

Respectfully,

MEYER, SCHULTZ & Co.



GEORGE WASHINGTON

Washington studied and mastered without help the intricate forms of business. He copied bills of exchange, notes, drafts, bills of sale, receipts, and all the varieties of business from, with a precision and elegance that were remarkable—Living.

## INTEREST LAWS AND STATUTES OF LIMITATION.

	Intere	nt lawn	5	tatute of	limitations.	
States		linto al-				_
and	Legal	lowed by	Judg-	Notes,	Open	Days
Territories.	rate.	contract.	ments,	years.	accounts,	01
	per cent.	per cent.	years		2 cmm	grace.
Alabama	8	8	20	6	3	0
Arizona	es es	10	4	4	3	0
Arkanana	6	10	10	5	3	3
California.	7	A y	5	4	4 0	0
Colorado	8	Any	no l mit	0	0	0
Connecticut	6	6	10	6	3	0
Delaware	6	00	12	3	3	ŏ
District of Columbia	6	10	20	5	3	0
Florida	7	8	7	200	6	0
Georgia	7	12	6	5	4	0
Illinois	5	7	20	10	5	0
Indiana	6	8	20	10	0	0
lowa	0	14	20	10	3	0
Kansas	6	10	5	8	3	0
Kentucky	O.	6	15	15	2	0
Louimana	5	8	10	5	3	0
Maine	0	ALY	12	3	3	0
Maryland	6		8 6	6	6	0
Massachusetts	5	Any	10	6	6	Ŏ
Michigan	6	10	10	6	6	0
Minnesota .	6	8	7	6	3	0
Musicant pi Musicant	6	8	10	10	5	0
Montana	8	12	10	8	5	0
Nebraska	7	10	5	3	2	0
Novada .	7	12	6	0	4	0
New Hampshire.	6	6	20	()	6	0
New Jersey	6	. 4	20	6	6	3
New Mexico	6	12	d20	6	6	0
New York	6	6 6	10	3	3	0
North Carolina	6	10	10	6	6	0
North Dakota Ohio	6	14	5	15	6	0
Oklahoma	6	10	3	5	5	3
Oregon	6	10	10	0	6	0
Pennsylvania	6	6	5	0 6	6	0
Rhode Island	6	Any	20	6	6	3
South Carolina	7	8	10	6	6	3
South Dakota	7	12	20	6	3	0
Tennessee	6	6	10	4	2	3
Texas	8	12	5	6	4	0
Utah	6	6	8	6	6	0
Vermont	6	6	20	5	5	0
Virginia Washington	6	12	18	6	3	0
West Virginia.	6	6	10	10	5	0
Wisconsin	6	10	120	6	6	0
Wyoming	8	12	21	10	8	0
						D

a Licensed lenders may receive 12 per cent. b Witnessed 20. c Any rate co-called loans of \$5,000 or over. d Not of record 6. s Under seal 20 years. f Justic court 6 years.

## LEGAL HOLIDAYS

When falling on Sunday, the Monday following is observed.

January 1. New Year's day: In all the States is suding the District of Columbia,) except Massachusetts, Misses ppi and New Hampshire.

January 8. Anniversary of the Battle of New Orleans: In Louisiana.

January 19. Lee's Birthday: in Florida, Georgia, North Carolina, South Carolina, Virginia, and Alabama.

February 12. Lincoln's Birthday: In Connectiont, Delaware, Illinois, Minnesota, New Jersey, New York, North Dakota, Pennsylvania, Washington and Wyoming.

February 22. Washington's Birthday: In all the States (in luling the District of Columbia,) except Mississippi, where it is observed by exercises in the public schools only.

March 2. Anniversary of Texan Independence: In Texas.

March 4, in the District of Columbia, when it falls on the day the President is inaugurated.

April 19. Patriots' Day: In Massachu etts.

April 21. Anniversary of the Battle of San Jacinto: In Texas. April 26. Confederate Memorial Day: In Alabama, Florida, Georgia, and Mississippi.

May 10. Confederate Memorial Day: In North Carolina and South Carolina.

May (Second Friday). Confederate Day: In Tennessee.

May 20. Anniversary of the Signing of the Mecklenburg Declaration of Independence: In North Carolina.

May 30. Decoration Day: In all the States (and District of Columbia,) except Florida, Georgia, Idaho, Louisiana, Texas, Mississippi, North Carolina, South Carolina. In Virginia, known as "Confederate Memorial Day."

May (Last Friday.) Pioneer Day: In Montana, observed in public schools.

June (First Morday,) even years, general State election in Oregon.
June 3. Jefferson Davis' Birthday: In Florida, Georgia, and Alabama. In Louisiana, known as "Confederate Decoration Day."

July 4. Independence Day: In all the States, and District of Columbia.

July 24. Pioneers' Day: In Utah.

August 16. Bennington Battle Day: In Vermont.

September (First Monday.) Labor Day: In all the States, (and District of Columbia,) except Arizona, Mississippi, Nevada, and North Dakota. In Louisiana, observed in Orleans Parish.

September 9. Admission Day: In California.

October 12. Columbus Day: In California, Illinois, Michigan, New Jersey, New York and Pennsylvania.

November 1. All Saints' Day: In Louisiana.

November—General Election Day: In Arizona, California, Colorado, Delaware, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Oregon, (vote for Presidential elections only,) Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, West Virginia, Washington, Wisconsin, and Wyoming, in the years when elections are held therein.

November—Thanksgiving Day (usually the fourth Thursday in November:) Is observed in all the States, and in the District of Columbia, though in some States it is not a statutory

holiday.

December 25. Christmas 'Day: In all the States, and in the District of Columbia.

Sundays and Fast Days are legal holidays in all the States which

designate them as such.

Arbor Day is a legal holiday in Arizona, Maine, Minnesota, New Mexico, Wisconsin, and Wyoming, the day being set by the Governor; in Texas, February 22; Nebraska, April 22; Utah, April 15; Rhode Island, May 11; Montana, second Tuesday in May; Florida, first Friday in February; Georgia, first Friday in December; Colorado (school holiday only), third Friday in April; in Oklahoma, the Friday following the second Monday in March.

Good Friday is a legal holiday in Alabama, Delaware, Louisiana, Maryland, Pennsylvania, and Tennessee.

Mardi-Gras Day (Shrove Tuesday or last day of Lent) is a legal holiday in Alabama and the parish of Orleans, Louisiana.

Every Saturday after 12 o'clock noon is a legal holiday in "Illinois, New York, New Jersey, Pennsyvlania, Maryland, Tennessee, Virginia, the District of Columbia, and the city of New Orleans, and in Newcastle County, Del., except in St. George's Hundred; in Louisiana and Missouri in cities of 100,000 or more inhabitants; in Ohio in cities of 50,000 or more inhabitants; and June 1 to August 31 in Denver, Col.

<sup>&</sup>quot;In cities of 200,000 inhabitants or more.

There is no national holiday, not even the Fourth of July. Congress has at various times appointed special holiday. In the second session of the Fifty-third Congress it paged an act making Labor Day a public holiday in the District of Columbia, and it has recognized the existence of certain days a holidays for commercial purposes, but, with the exception named, there is no general statute on the subject. The proclamation of the President designating a day of Thanksgiving only make it a legal holiday in the District of Columbia and the Territories, and in those States which provide by law for it.

## GALES OF PERSONAL PROPERTY

What Constitutes a Sale.—A sale of goods is the transfer of ownership thereof for a consideration in money, paid or to be paid.

Earnest will always bind the bargain, but it must con ist of the Jiving away of something valuable, and not a mere ceremony.

Delivery of the Goods.—On a contract of sale of goods the general rule is, that the delivery is to be at the place where the vendor has the article.

Delivery to an Agent, or carrier, if with the purchaser's consent, is sufficient.

Payment.—The law presumes that when a sale is made there is to be immediate payment unless otherwise agreed.

Credit may be expressly agreed upon, or may be implied from custom and usage.

How Goods are to be Shipped.—If the goods are to be sent to a distant point, they must be shipped by the route directed by the purchaser. If no direction is given, they are to be sent by the usual route. If so sent, the goods are the buyer's at the moment of shipment, and the seller is relieved of responsibility. But if the goods are to be delivered by the seller at a distant point, he is responsible that they reach there in good condition.

Goods Must Agree with Terms of Sale.—Unless the goods which are delivered agree with the terms of sale, the buyer need not accept them. Even after he has used a portion of them, if he finds that they are substantially different from what they were represented to be, he can return them or notify the seller that he will not accept them, and that he holds them at the

seller's risk, subject to his order at the point where the buyer received them.

Sale of Debts.—A claim upon a debtor may be sold just the same as other property, but notice of such a sale must be given to the debtor.

Defects.—Should there be any defects in the property or animals, which can be seen, that does not relieve the buyer from meeting his obligations, though he claims not to have seen the defects.

But if the defects cannot be seen and the seller recommends the property as good or sound, the buyer is relieved from filling his part of the contract.

Warranty.—If the seller of goods makes any assertion respecting the kind, quality, or condition of the article upon which he intends the purchaser should rely as a fact, and upon which he does rely, that is a warranty.

Where Goods are Sold by Sample there is an implied warranty that the goods correspond with the sample.

It is a general rule that the employer will be bound by the warranty of his clerk or shopman, if acting within the scope of his authority.

Warranty must be at the time of sale; if it be made after, it is void for want of consideration.

Stopping Goods on the Way to Purchaser.—The seller of goods, under certain conditions, has a right to stop goods that are in a carrier's hands and on the way to the buyer at some distant point. This is termed stoppage in transit.

Fraud on Part of the Buyer.—If the buyer has been guilty of such fraud as entitles the seller to rescind the sale; or if the buyer is actually insolvent; or if he has misrepresented his condition or made false pretenses in buying; or if he be so embarrassed that in reasonable probability he cannot pay for the goods, the seller has a right to stop them in transit.

If the goods were sent to pay a debt of the seller's they cannot be stopped.

When the Right of Stoppage Ceases.—The right to stop goods in transit ceases when the buyer receives the goods at their appointed destination; or when the buyer takes the goods while on their way to him; or when the buyer has transferred the goods by bill of lading to a third party, in good faith and for value; or when the goods have passed into possession of the buyer's agent; or when the goods have been sold by the buyer,

and the purchaser has taken possession of them; or when the seller has delivered the key of his warehouse to the buyer that he may get the goods; or when the buyer has agreed with the seller that the goods shall remain in the seller's warehouse, with or without storage; or when the buyer has handed the seller's order to the keeper of the goods for the delivery of the same.



## BILLS OF SALE

A Bill of Sale is a written instrument by which one person, for moneyed consideration, transfers the right and interest which he has in goods or chattels to another.

The Validity of the Sale does not depend on the actual possession of the goods, but, as a general rule, in order to establish ownership in law, the purchaser must take actual possession of the property purchased. In some States, however, if the sale was not made fraudulently, for the purpose of evading the payment of just debts, the bill of sale is prima facie evidence of the sale, and will hold good against the creditors of the seller.

In Cases of Dispute juries have the power to pass decision upon the fairness or unfairness of the sale, and if fraud can be shown by the evidence, the bill of sale will be ignored and the sale declared void.

## Form of Bill of Sale

Know all Men by These Presents, That I, John R. Hartman, of Bedford, Indiana, in consideration of Seven Hundred and Seventy Dollars (\$770), the receipt of which is hereby acknowledged, do hereby grant, sell, transfer and deliver unto Charles Caxton the following property, to wit:

Five	Horses	 @ \$100 \$500	)
Two	Buggies	 @ 90 150	)
Two	Harness	 @ 25 50	)
		@ 20 40	
			-
	Total	\$776	0

To have and to hold the said goods and chattels unto the said Charles Caxton, his executors, administrators and assigns, to his own proper use and benefit forever. And I, the said John R. Hartman, do avow myself to be the true and lawful owner of said goods and chattels; that I have full power, good right and lawful authority to dispose of said goods and chattels in mainer aforesaid; and that I will warrant and defend the same against the lawful claims and demands of all persons whomsoever.

In witness whereof, i, the said John R. Hartman, have hereto set my hand this twenty-first day of May. 1911.

JOHN R. HARTMAN.

(Witness) ----

## Bill of Sale-of a Horse, with Warranty

Know all Men by These Presents, That in consideration of One Hundred and Pifty Dollars, to me paid by Henry King, the receipt of which is hereby acknowledged, I. William Morris, by these presents do bargain, sell, and convey to the said Henry King his heirs, executors administrators, and assigns, one bay horse, of the male sex, bay color, fifteen hands high, with a white star in the forehead, known as Bay Boy, to have and to hold the same unto the said Henry King, his heirs, executors, administrators, and assigns forever.

And I, for myself, my heirs, executors, and administrators, will warrant and defend said horse unto him, the said Henry King, his heirs executors, administrators, and assigns, against the lawful claims and demands of all and every person or persons whatsoever.

Witness my hand this tenth day of May, 1911.

WILLIAM MORRIS.

Witnesses:

JAMES FUNSTON, RICHARD BOYCE.





THE FIRST ALL STEEL TRAIN

## "Pennsylvania Special" 18 hours between New York and Chicago TRANSPORTATION

## Liability of Railroad and Express Companies

The Business of Transportation, especially of goods and merchandise, and the laws which regulate the same are of great importance, and should be thoroughly understood by every one

Carriers.—Those who tran port goods for others are called carriers, and since all the business is done under contract such contracts are very numerous.

Common Carriers.—A common carrier is one whose ousiness is the carrierg of goods or persons from place to place for a consideration, either by land or water.

The most common ones are the railroad, steamboat, steamship, and express companies, but truckmen, teamsters, expression, and others who offer their carrying services to the public generally are also common carriers.

## Common Carriers of Goods

Two Elements are Necessary to constitute one a common carrier, (1) his following it as a business, and (2) his offering his services to the public generally. Those who work only for a particular person are not common but private carriers.

Obligation to Take.—A common carrier is obliged by law to take any goods that are offered to him for transportation to any point on his route, provided his usual compensation is offered him in advance.

In case the carrier's cars are full he may refuse to take more; he may also refuse to carry freight of a dangerous character, such as explosives. Compensation.—Carriers may establish such rates or make such contracts as they choose. Large corporations usually have established schedules of rates. They can change these from time to time, but they must accept the goods of all persons at those rates. They cannot demand more from one person than from another, but must treat all alike.

Discrimination Unlawful.—The carrier must not make unjust discrimination as to prices of carriage. Before the passage of the Inter-State Commerce law, systematic discrimination in their charges was practiced by some of the railroad companies in the United States. Great corporations were given low rates for their vast shipments, while the small shipper was crushed by much higher charges for transportation. Unjust discriminations were also made between different towns and localities. The Inter-State Commerce law renders such discriminations unlawful.

Compensation.—Common carriers may demand their pay in advance, yet they often transport the goods and collect the freight from the person receiving the same.

In case the person to whom the goods are sent refuses to pay the charges the carrier must collect from the sender, for it was with him the contract was made and he alone can be sued. The other party made no contract with the carrier, hence cannot be sued. But if the sender is acting as the agent of the person to whom they are to be sent the company may sue the latter, for in that case the contract was made with him

Diligence and Dispatch—A common carrier is bound to carry the goods with reasonable diligence and dispatch, and safely deliver them to the person to whom they are consigned, without any loss or injury, except such as may be occasioned by the act of God, the public enemy, or the fault or fraud of the owner.

When Liable beyond His Own Rcute,—If a carrier receives goods for transportation and agrees to deliver them beyond the terminus of his own route he renders himself responsible for the whole route. He may by special contract limit his liability to his own route, and absolve himself by safe delivery to the next connecting carrier.

Carrier's Lien.—Common carriers have another way to obtain their pay. Common carriers may keep the goods they have transported until their charges are paid.

Thus, there are three ways in which a carrier may enforce payment of his freight, viz.:

- 1. He may refuse to take the goods unless payment is made in advance.
  - 2. He may transport them and then keep them until paid
- 3. He may transport and deliver them and then sue the person with whom he made his contract.

Loss or Injury.—Common carriers are responsible for any loss or injury occurring to goods which they are transporting. Any damages that have occurred to the goods while in possession of the carrier must be made good. He has complete control over the goods as if they were his own, and if while in his possession they suffer injury it is his loss.

The carrier is not liable for the "act of God," such as cyclones, floods, lightning, a public enemy as in war, or (in shipping) for perils of the sea. But fire, unless caused by lightning, does not come under this head. Robbery or theft does not relieve them from liability.

Any damages that have occurred to the goods while in possession of the carrier must be made good if it occurred through the carelessness of any of the employees.

Perishable Goods.—Carriers are not responsible for loss to fruits that decay in their possession, or goods shipped in defective boxes or carelessly packed, such as glassware, crockery or other articles that are easily broken.

If a package is of great value, such as money, the common carrier must be informed of it.

Collecting Damages.—In case of damage to goods the railroad or express company should be duly notified and the amount of damages stated or sworn to before a proper officer and with sufficient evidence, if required.

A common carrier must pay the market value at the point of destination of all property lost or destroyed by his fault while in his care for transportation.

Receipt.—In shipping goods by freight or express a receipt or bill of lading should always be taken and carefully preserved.

Bills of Lading.—The bill of lading is the carrier's acknowledgment of the receipt of goods, and is evidence of contract between the parties, and is supposed to contain all the carrier's claim for non-liability. Three copies of the bill are made out; one is kept by the shipper, another by the party transporting the goods, and the third is sent to the person to whom the goods are consigned.

Bills of Lading are transferable and assignable, and the assignee may sue for the recovery of the goods.

## Form of Bill of Lading.

	New York, December 10, 1911.
Shipped in good order, and well c	onditioned, by James C. Hanton
on board the ship Good pred	
Marked as follows:	whereof Chas. Bollman
Cularate a Charle	in master now later in the rule of

In witness whereof I have affirmed to three bills of lading, all, of this tenor and date, one of which being accomplished the others to stand yord.

HENRY R. SANDFORD.

(In the above form, Hanton is the shipper or consignor, Clyde the consignee, and Sandford the carrier. It might be signed by the master (Bollman) instead of by Sandford.)

## Common Carriers of Persons

A common carrier of persons is one who holds himself out to carry for hire from place to place all such persons as choose to employ him. Railroads, steamboats, street car, omnibus and stage line companies are the most common.

His Duty.—He must carry all persons who may present themselves for carriage, provided they are in a proper condition and offer their fare. He is bound to provide suitable and proper means of conveying, with suitable attention.

His Liability.—He is bound to use the highest degree of care and diligence in the conduct of his business and is responsible for negligence of any kind. He is bound to protect the passengers against insult or injury from his servants or employees. He must give passengers reasonable time to get off and on the carriage and suitable means of doing so.

Baggage.—Passenger carriers are responsible for the baggage of their patrons. If the servants of the carrier are allowed to carry parcels, the carrier will be responsible for their safe delivery, although the carrier derives no benefit therefrom.

A Baggage Check is evidence of the liability of the company issuing it.

Baggage does not include merchandise, or money, except an amount reasonable for expenses.

If a carrier sells a person a ticket to a point beyond the terminus of his own route, and a pecially if he also checks the baggage to such a point, he is responsible for the of ty of the baggage to that point.

## ACKNOWLEDGMENTS

An Acknowledgment is a declaration, before an authorized officer, of a party who has executed a deal or other decument, that it is his free and voluntary act

What Instruments Must be Acknowledged - All decls and conveyances of land, to be effectual as to third parties, must be recorded upon previous proof or acknowledgment of their execution. In some of the States, chattel mertines are must be acknowledged.

edged and recorded the same as decide

Before Whom Taken .- Within the several State acknowledgments may be taken in general before the following officers: Notaries Public and Justices of the Peace generally within their territorial jurisdiction, and in any place of the State usually before Judges and Clerks of the Supreme Circuit Probate, and County Courts, Judges of the United State Court Chancellors, Registers, Masters in Chancery, and court Committees, County Recorders, Town Clerks and their a deant, United States Commissioners, County Surveyers, County Aulitor, Registers of Deeds, Mayors, and Clerks of incorporated cities may take acknowledgments within their pir liction badden the foregoing, in several States also the det uti of the enumerated officers, and in Connecticut, Commission as of the School Fund: in Louisiana, Parish Recorders and their deputies, in Maine, women appointed by the Governor for that purpose, in Michigan, members of the Legislature; in Mi-issippi, members of County Board of Supervisors; in Nebraska, the Secretary of State: in New York, Recorders of cities and Commissioners of Deeds; in Pennsylvania, Mayors, Recorders, and Aldermen of Philadelphia, Pittsburg, Allegheny, and Carbondale; in Rhode Island, State Senators; in Vermont, Registers of Probate; in West Virginia, Prothonotaries, in Wisconsin, Police Justices.

Without the State and within the United States, the following officers are authorized to take acknowledgment: Judges and Clerks of Courts of Record, Notaries Public, Commissioners appointed for that purpose by the Governors, and officers authorized to take acknowledgments within their respective States.

Besides the foregoing, also, in Colorado, Secretaries of State; in Delaware, Mayors of cities; in Illinois, Justices of the Peace, Commissioners of Deeds, and Mayors of cities; in Kentucky, Secretaries of State; in Michigan and Wisconsin, Master in Chancery; in New Jersey, New York, North Carolina, Pennsylvania, and Rhode Island, Mayors and Chief Magistrates of cities.

Without the United States.—Ju!ges of Courts of Record, Mayors or Chief Magistrate of cities, towns, boroughs, counties, Notaries Public, Diplomatic, Consular, or Commercial Agents of the United States resident and accredited in the country where the acknowledgment is taken. (See Deeds.)

## Form of Single Grantor's Acknowledgment

STATE OF ILLIN IN, I COUNTY of Clark, 1

I, William Mann, a trip bloof rand within all county, in the State of result, bloof by settly that A rwF, d. I - r lly kn white nie as the real production of the settle settle for bong dead as having stempt of the land, and described in the result of writing his free and velocity act, firth and product the result of the re

Given under my hand and sal if one, this sound day of June,
A. D. 1811. William Mann.

[ TITAKIAL BEAL]

S tary Public.

## Acknowledgment by Husband and Wife

STATE OF (110. Courty of Frankle,

Before the Evertt Howe, an tary policy for and the most county, in the State after 1d, apper in the able named to the Kendall, and Soon Kendall, he wis, but a greenally know to me as the real persons who may read any local to the within the care and according to that they are it, and diversit the same for purpose the remner to the care and according to the results.

And the unit S in K dall, having been by the countril, a parate and apart, and out of having of hir his and, acknowledged that she exercted the similar firely, and with stand for in computer of a read human distribution.

Oly n under my find a discal of othe, the fifteenth day of Jamery, A. D. 141. Lyrerr Howe,

[NOTARIAL BEAL.]

Notary Public

## **AFFIDAVITS**

An Affidavit is a statement made under oath (or affirmation) before an authorized official, and signed by the person making it.

For What Used.—In judicial proceedings, except for trial of causes, addavits are the usual means of presenting evidence to the court, and are most frequently used to support or oppose the numerous applications for orders, known as motions.

No Particular Form is prescribed by law, but the affliavit roust specify the State and county in which it is made, so as to show that the officer who administered the cath had authority to do so

The Statement should be confined to facts within the ritual knowledge of the person making the affiliavit, or when ride on information and belief, that fact should be tated.

Jurat.—The officer taking the affiliavit affixes a clause called the jurat, certifying the time and fact of the eath

Who may Take.—Judges, Justice of the Peace, Commissioners of Deeds, Notaries Public, and other and similar officers have authority to take affidavits.

## General form of Affidavit

STATE OF PENNSYLVANIA,
Allegheny County, City of Pitt rg.)

Hernard Reckman, being day a ro, day and an interest for and says): That (Here set out in full and on the same the same to be alleged.)

[BEAL]

Sworn (or affirmed) before m, this fiftee t, day 'Jumpy, A. D. 191L.

Juny Williams

Justice of the Peace.

(If the affiant is unable to read, the subscribed and sworn to before u.e. the same having been by me (or thing up to the same having been by me (or thing up to the same that the same

(Our realize and the)

## Affidavit to Accounts

STATE OF ILLINOIS, } OR.

Franklin Gage, of Chicago, in sa I Courty and tate, being dily awith, deposits and says; That the above activity a tatil, by a said true

That the above sum of Fifty Delians is now justly does and owing to the deponent by the above named James Higgin

That he, the said France Gage, has not received the same or my part thereof, either directly or in in ethy, not any person for him, by he and or order, knowledge or consent.

Franklin Guir

Swern and subscribed before me, this north day of J = A D 1911 Mr HAEL SWAYN,

Justice of th. Frace.

## Affidavit to Declaration or Petition

STATE OF ILLINOIS. ) County of Sangamen, 5 ss.

Abel Jones, being duly sworn, says: That the facts at forth in the fargoing declaration or petition) are true.

ABEL JONES.

Subscribed and sworn to before me this tenth day of June, A. D. 1911.

ISAAC MYERS, Justice of the Peace.

# AGENCY

An Agent, in law, is a person authorized to act for another, called the principal, the relation between them being known as agency

Agency is one of the most common and necessary relations of life. Nearly every one acts every day as the agent of some one else. Thus every clerk in a store is the agent of the proprietor. Almost all the business of brokers, commission merchants, law-



METROPOLITAN LIFE BUILDING, NEW YORK Tallest offlice building in the world, height to stories, 700 feet

yers, auctioneers, etc., is one sort of an as ney Corp rations act wholly by means of agents, viz: their officers of rks etc.

Who May Act as Principal or Agent.—Any one who is competent to do business for himself may act as principal, as lappoint an agent to transact it for him. Per on who cannot is business for themselves may, however, be appointed to act as a continuous and married women may act as a continuous and married women may act as a continuous act.

A General Agent is one authorized to represent his principal in all his business of one particular branch.

A Special Agent is one appointed to a particular thing only, or a few particular things.

How Appointed.—An agent's authority may be given orally or by writing; no particular form of words is now ary. In important matters, the agent is often appinted by a written instrument which is called a power of attorney. When thus authorized under seal, an agent can ign deals, or other conveyances of real estate or sealed instrument.

Extent of Authority.—The employing of an agent is the act which gives him his authority. An agent has authority to do whatever is necessary or generally done in connection with the purposes for which he is employed. Some employments give very wide latitude of power, and leave very much to the discretion of the agent; others give a very limited authority. Thus any act of the president or cashier of a bank in connection with its banking business binds the bank, while a meaning would have authority only to carry a meaning.

Liability of Principal.—The principal is responsible for the acts of his agent committed in the execution of the agency and which are within the real or apparent scope of the principal abusiness. A distinction is here made between a special and a general agent. If a special agent exceeds or disobeys his instructions the principal is not liable; but if a general agent exceeds his authority the principal will be bound, if the act is within the apparent scope of an agent's authority, when it is such an act as is natural and usual in transacting business of that kind. By appointing him to do that business, the principal is considered as saying to the world that his agent has all the authority necessary to transact it in the usual way. For any criminal act, however, of the agent, the principal is not responsible unless he directly commands him to commit it.

Wrongful Acts of Agents.—As to wrongs and injuries, or torts, as they are called in law, the general rule is that the principal is

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liable to third persons for the wrongful acts of the agent when acting within the scope of his agency. But this does not relieve the agent of personal liability himself.

The Agent's Liability.—1. To his Principal. An agent is bound in transacting the affairs of his principal to exercise all the care which a reasonable man would exercise in his own, and to the utmost good faith. For any loss to the principal through neglect or unfaithfulness, the agent is liable to him. 2. To the Third Purty. If an agent conceals his character as an agent, or transcends his authority, or otherwise so conducts himself as to make his principal responsible, or if he expressly binds himself in any will, he is himself liable to the third party.

Accounting.—The principal may call his agent to an account at any time, and may recover full indemnity for all injuries sustained by reason of the positive misconduct or negligence of the agent, or by his transcending his authority. An agent is not liable to his principal for not accounting until demand, which demand should be made at his residence, and sufficient opportunity given him for payment.

Compensation.—As against the principal, an agent is entitled to compensation for his services, and reimbursement for the expenses of his agency, and for personal loss or damage in properly transacting the business thereof.

Sub-Agents.—An agent may himself appoint another agent and act through him. Such a person is called a sub-agent, and is responsible to him who has appointed him, as his principal. In most commercial transactions sub-agents may be employed.

In Whose Name the Business is Done.—All business should be transacted and money deposited in the name of the principal. If an agent deposits money in his own name and the bank fails he is responsible for the loss.

Mixing Property.—If an agent mixes his own property with that of his principal, so that it cannot be identified, it will all belong to the principal.

Responsibility to Third Party.—Ordinarily a person can only be responsible for his own acts, but an agent's act is really considered as that of his principal. Therefore the rule is that the principal is responsible for the acts of his agent. The principal is bound even though he was unknown at the time the act was done, because he is supposed to derive the benefit of the same.

Ratification.—If a principal ratifles an act done, he is bound by it, whether he had given the agent authority or not. Subsequent ratification is equivalent to prior authority. But if such ratification is made under a mistake of circumstances it is not binding.

Responsibility of Third Party.—A person doing business with an agent is just as responsible to his principal as though he had transacted the business with the latter in person.

Revocation.—It is always in the power of the principal to revoke an agency; but if the power conferred is coupled with an interest, as where an agent has power to sell goods and apply the proceeds to his own use; or if it is given for valuable consideration, and a continuance of the agency is necessary to meet the responsibilities he has assumed in advance, to cary it on, then such agency cannot be revoked at the pleasus of the principal.

How to Revoke an Agency.—It must be done by an express act of the principal or by the act of law. The first implies a written form revoking the power of attorney that has been conferred, or any express declaration to revoke. The second occasion may be the death of the principal or agent.

Notice to be Given,—Due notice should be given by the principal of such revocation to those who knew of the authority given to such agent, because a general authority may continue to bind the principal after it has been actually recalled, if the agency were well known and the recalling of it wholly unknown to the party dealing with the agent without that party's fault.

Power of Attorney.—The authority by which one person is empowered to act in the place or as the attorney of another is called a power of attorney. The power of attorney is usually in writing and under seal, though for many purposes it may be created by parol. Strict rules of construction are applicable to these instruments, and courts incline to construe even general powers narrowly rather than broadly. If the power of attorney is to be recorded it should be properly acknowledged before an officer the same as a deed.

### General Form of Power of Attorney

Know all Men by These Presents, That I, William Brown, of Chicago, County of Cook, and State of Illinois, have made, constituted, and appointed and by these presents do make, constitute, and appoint, George B. Stadden true and lawful attorney for me and in my name place, and stead, [here take the purpose for which the power is given], giving and granting unto my said attorney full power and authority to do and perform all and every act and

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thing whatsoever, requisite and necessary to be done in and about the premises, as fully, to all intents and purposes, as I might or could do if personally present, with all power of substitution and revocation, hereby ratifying and confirming all that my said atterney or his substitute shall lawfully do or cause to be done by virtue thereof.

In witness whereof, I have hereunto set my hand and seal the second day of January, one thousand nine hundred and eleven,

WILLIAM BROWN, [SEAL]

Signed, Sealed, and Delivered )
in Presence of

### Power to take Charge of and Carry on Business

Know all Men by These Presents, That I, Henry Saylor, of Aurora, Illinois, do by these presents appoint, constitute, and make R. L. Winters my true and lawful attorney, for me and in my place and stead to take charge of my business of general merchandising at Aurora, Illinois, to purchase and self for cash or on credit all such articles, goods, merchandise, and wares, as he shall deem proper, necessary, and useful in satil business, to sign, accept, and indorse all notes, drafts, and bills, to state accounts; to sue and prosecute, compromise, collect, and settle all claims or demands due or to become due, now existing or hereafter to exist in my favor, to adjust and pay all claims or demands which now exist or may hereafter arise against me, either connected with said business or otherwise.

In witness whereof, I have hereunto set my hand and seal, this — day of ——, 19—

HENRY SAYLOR. (SEAL)

### Power to Vote as Proxy at an Election

Know all Men by These Presents, That I, Homer Clark of Peoria, Illinois, do hereby appoint J. R. Wagner to vote as my proxy at any election of directors or other officers of the [name the company or corporation] according to the number of votes I should be entitled to if I were then personally present.

GLORGE PAXTON. [SEAL]

#### Letter of Revocation

That I the said Fred. B. Jennings, do by these presents annul, countermand, revoke, and make void said letter of attorney and all authority and power thereby given said attorney, R. L. Hartmann.

In witness, etc.



BENJAMIN FRANKLIN

Seest thou a man diligent in his business. He shall stand before kings.—Prov. xxii; 30.

# APPRENTICESHIP

An Apprentice is a person bound to service for a number of years, and receiving in return instruction in his master's business. Although in most of the States the contract is provided for by statute, apprenticeship, as a necessary means of access to a trade, has been almost universally abolished.

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#### CHILD-LABOR LAW

The Magna Charta for American Children

Child-labor in the United States was dealt with by Congress in August 1916 under the Constitutional power to "reg-

ulate commerce among the several States."

The Act prohibits, under penalties, interstate commerce in the products of any mine or quarry where within thirty days persons under sixteen years of age have been employed, or in the products of any mill, cannery, workshop, or manufacturing establishment in which children under fourteen years of age have been employed, or in which children between the ages of fourteen and sixteen have been employed more than eight hours a day, more than six days a week, before six o'clock in the morning or later than seven o'clock in the evening. The law goes into effect one year after its enactment.

The constitutionality of this law has been questioned. On this point Congress took the position that its power to regulate interstate commerce includes authority to prohibit absolutely the shipment interstate of specified articles, so long as action is not arbitrary, capricious, or unreasonable in interference with private rights. Members of Congress who voted in favor of the enactment did so under the belief that the provisions of the law do not constitute such unreasonable interference.

Children's Bureau.

Children's Bureau.

By an act of Congress passed April 9, 1912, there was created in the Department of Labor a Children's Bureau, with headquarters at Washington, D. C., and authorized to investigate and report upon all matters pertaining to the welfare of children and child-life among all classes of our people, and especially to investigate the questions of infant mortality, the birth-rate, crphanage, juvenile courts, desertion, dangerous occupations, accidents, diseased children, and employment and legislation affecting children in the several States and Territories.

Industrial Relations Commission.

An act of Congress approved August 23, 1912, established the An act of Congress approved August 23, 1912, established the Commission on Industrial Relations, and provided that the Commission shall inquire into the condition of labor in the principal industries of the United States, including agriculture, and especially those which are carried on in corporate forms, into the effect of industrial conditions, on public welfare and into the rights and powers of the community to deal therewith; into the conditions of sanitation and safety of employees and the provisions for protecting the life, limbs and health of the employees; into the Erowth of associations of employees and of ware-corporate the growth of associations of employers and of wage-earners and the effect of such ass ciations upon the relations between employers and employees, into the extent and results of methods of collective bargaining; into any methods which have been tried in any State or in foreign countries for maintaining mutually satisfactory relations between employers and employees. The Commission is required to seek the underlying causes of dissatisfaction in the industrial situation and report thereon.



"Think twice before you our your neighbor "

# ARBITRATION

The Law Favors the peaceful settlement of controversies, and in many of the States there are statutes providing for the submission of disputed matters to the decision of one or more persons, called arbitrators. Their decisions are called awards.

The Statutes Generally Provide that if the parties to any suit in a court of record desire to submit the matter involved to arbitrators, an order may be entered directing such submission to three impartial and competent persons, to be named in such order—such arbitrators to be agreed upon and named by the parties, and if they fail to agree, each shall name one, and the court the third.

How Arbitration is Conducted.—The arbitrators so appointed are sworn, and proceed to hear and determine the matter, and draw up an award. The proceedings are much like proceedings in court or before a master in chancery. A copy of the award is delivered to each party, and if either party fails to comply therewith, the other within a year may file said award in court, and obtain a judgment.

Matters Not in Suit.—All persons having a requisite legal

capacity may, by an instrument in writing, signed and sealed by them, submit to one or more arbitrators any controversy existing between them, and may, in such submission, agree that a judgment of any court of record, competent to have jurisdiction of the subject-matter named in such instrument, shall be rendered upon the award made pursuant to said submission.

The Agreement to Submit should state explicitly what powers are intended to be conferred on the arbitrators, either by referring all controversies, or by distinctly limiting the particular controversies intended.

Reasonable Notice.—All arbitrators and all parties should have reasonable notice of the time and place of the hearing.

The Proceedings at the hearing, and the award itself should perfectly agree with the terms of the agreement to submit.

The Award should be a clear, distinct and final determination of each and all the matters of controversy contained in the agreement, and should embrace nothing more. If it be a rule of court it should be sealed up, otherwise a copy should be given to each party. The award must be signed by the arbitrators.

Submission May Be Recalled.—Before the award of the arbitrator or arbitrators is made, either of the parties to the controversy may withdraw his offer to accept the decision of the arbitrators. He must, however, give formal notice to each and all of the other parties of his intention, or his withdrawal is of no effect. The party who thus recalls the arbitration is responsible for all the costs and damages that have occurred in consequence of his previous consent to submit to arbitration.

### Form of Agreement to Refer to Arbitrators

Know all Men by The e Pre-ents. That we, the undersigned, hereby mutually agree to submit all the matters in difference between us, of every kind, name, and nature, to the determination and award of Chas. Barker, Wm. Becker and Robert Rehling, of Logansport, Cass County, Indiana, as arbitrators.

That said arbitrators, or any two of them, shall hear and determine the matters in dispute between us, and award the payment of all the costs and expenses incurred in such arbitration. That the said arbitrators shall make their award in writing on or before the lifteenth day of April, A. D. 1911. Done at Logansport, Indiana, March 15, A. D. 1911.

R. L. RAY.
J. L. HOLMES, Witnesses

HENRY GAMER, ROLAND R. CODY.

### Form of Notice to Arbitrators

GENTLEMEN: You have been chosen arbitrators on behalf of the undersigned, to arbitrate and award between them, in divers matters and things

set forth in their submission, which will be product if rour to with a you meet at the interval allegations and gradients.

Date !, etc.

H wy tike n

# THE HAGUE

The International Court of Arbitration and at the Hague in Holland, is intended to and undoubtedly will, ultimately, bandsh war. The treaty entable hing this court where all matters of dispute between nations is to be attled by arbitrators, chosen in accordance with the terms of the treaty was signed by the United States, Great Britian, Germany, Rusia, Mexico, Brazil, Belguim, Norway, Sweden, Donmark, Switzerland, Italy, Greece, Japan and other nations. Andrew Carusgis contributed One and one half millions of dollars toward the erection of a suitable building, now nearly completed for the accommodation of this court. It is a magnificent structure, worthy of its purpose, artistically designed with reference to it.

# ASSIGNMENTS

An Assignment is the transfer of a debt, obligation, bond, wages, or any kind of property, personal or real, or any actual interest therein. It also signifies the written instrument by which the transfer is effected.

How Made.—An assignment may be written on the back of the instrument it is intended to convey, or on a separate paper.

No Formality is Required by law in an assignment. Any instrument between the contracting parties that goes to show their intention to pass the property from one to the other will be sufficient. Proof will be called for only when it appears that it was merely a sham or fraudulent transaction.

Lands and Tenements.—Assignments relating to lands and tenements must be duly signed, sealed, acknowledged and recorded, like a deed.

For Benefit of Creditors .- Where property is assigned for the benefit of creditors, its actual transfer to the assignee must be made immediately. Such an assignment covers all of the assignor's property, whatever and wherever it may be, which is not exempt from execution.

Preferring Creditors .- At common law the assignor might give preference to certain of his creditors, but this is now generally

prohibited by statute.

Correct Schedules of the property assigned should accompany the assignment in all cases.

An Assignment of a Mortgage carries with it, at the same time, without a transfer, the debt note or bond.

Some Things are not Assignable, as an officer's pay or commission, a judge's salary, government bounties, personal trusts, as a guardianship, or the rights of a master in his apprentice.

# Form of Simple Assignment

For value rec ived, I hereby assign all my right, title, and interest in the within contract to Chas Ili man.

Dated Cleveland, Ohio, June 10. A. D. 1911.

MAURICE SANDFORD.

# Assignment of Account

In consideration of One Dollar, value received, I hereby sell and a sign to W. C. Cole the within account, which is justly due from the within George Sanders, and I hereby authorize the said W. C. Cole to collect the same. JAMES HASTER. Chicago, March 10, 1911.

# Assignment of Mortgage

Know all Men by These Pres nls, That I. William Bower, the within named mortgagee, for a consideration of Six Hundred Dollars hereby a sign, transfer, and set over to Henry Klingman, his hears and a signs, the within named instrument of mortgage, and all the real estate, with appartenances therein mentioned and described to have and to hold the same for it, subject, nevertheless, to the equity and right of redemption of the within named James Yundt, his heirs and a light there n

In witness whereof, the party of the first part has hereunto set his hand

and seal this fifth day of April, A. D. 1911.

WILLIAM BOWER. [SEAL]

Scaled and delivered in presence of EDWARD MILLER.

# Assignment with Power of Attorney

In consideration of the sum of One Thousand Dollars (the receipt of which is hereby acknowledged. I do hereby assign, transfer, and set over to Martin Scott (of Chicago, Ill.) all my right, title, and interest in and to [here describe what]. And I hereby constitute as I Martin worth by attempt, in my name or otherwise, but at his own costs and charge, to take a legal measures which may be proper or necessary for the costs of the proper of the proper of the proper of the costs of the proper of the

Witness my hand and seal this twentieth day of Janary, A. D. 1964.
(Witnesses) Hesser Land.

#### Assignment for the Benefit of Creditors

Know all Men by These Presents, That whire I Will Corage, merchant of the city of Minneapole, and State of Minneapole, and State of Minneapole, and State of Minneapole, and present to various persons in conditional being described by a large of the conditional being described by faw.

Now, therefore, I, in contration of the provent and of the conformal to me by Chas. Waters, if the contration and attack thereby grant, hargain, sell, a mutual context of the said C. Waters all my lands thement, goods and chit is if early and the right on, where ever the same may be exactly good for the good such property as is exempted by law from attack.

To have and to hold the are unto the uniform Water, in trust and confidence, to ell and depend to be in a larger of the freak upon such terms and confidence as in his joined to appear to the appear

Fir I. To pay all such douts as by the lass of the Unital States are

entitled to preference in such ca. ....

Second. To pay and discharge all the just and reasonable expenses, cost, and charges of executing this assignment.

Third. To distribute and pay the remainder of said proceeds to the creditors of the party of the first part for all dects and latellity with he may owe, rateably, in proportion to their respective claims,

Fourth. The residue and remainder of the proceeds of said sales, if any there be, shall be paid over to no, my executors, administrators, or assigns,

In witness whereof, I have hereunto set my hand and seal this fifteenth day of February, A. D. 1904.

Executed and delivered

WILLIAM COLERAGE, [SEAL]

in presence of John Myers, Henry Best.

### BAIL

Definition.—Bail is surety given for another's appearance in court. It is required in criminal cases generally and in civil cases involving tort or fraud. The term bail is applied also to the sureties themselves, and to the amount in which they bind themselves for the appearance of their principal.

Excessive Bail.—The constitution of the United States and the several States provide that excessive bail shall not be required.

Bail Bond.—The bond given by the sureties is termed a recognizance, and in case the prisoner does not appear for trial, or forfeits his bail, as it is termed, the sureties have to pay whatever sum is pledged in the bail bond or recognizance.

### Form of Bail Bond or Recognizance

STATE OF ILLINOIS, County of Kane.

This day personally appear it before the undersigned, a justice of the peace in and for said county, Charles Seibert and Frank Stanton, all of Aurora, in said County and State, and Jointly and serially acknowledged themselves to be indibted unto the people of the State of H. w., in the sum of Five Hundred Dollar, to be levied of their goods and chattels, lands and tenements.

Whereas, the allove bounden Charles Selbert, on the tenth day of March, A. D. 1911, was trought and examined by and before John Brown, a justice of the peace in and for the courty after ald, on a charge preferred against the said Charles Selbert, for [here state the offense charged] in said county, and the further examination of said Charles Schort having been continued to the ninth day of Atril, A D. 1 11, at 10 o'clock A. M and the said Charles Seibert having been adjudged a. I required by the sail judge to give bonds, as required by the statute in su b case made and provided, for his appearance to answer to said charge. Now the condition of this recognizance is such that if the above bounden Charles Selbert shall be and appear before the under igned, at his offic, in the city of Aurora, in said c unty, on the ninth day of April, A D 1911, at ten o'clock, A, M, then and there to answer to the said people of the State of Illinois, on said charge, and abide the order and judgment of said court, and not depart the same with ut leave, then and in that case this recognizance to become void, otherwise to be an I remain in full force and virtue.

As witness our hands and seals this tenth day of March, A. D. 1911.

CHARLES SEIBERT. [SEAL] FRANK STANTON. (SEAL)

Taken, entered into, and acknowledged before me this tenth day of March, A. D. 1911.

JOHN BROWN, Justice of the Peace.

### BAILMENTS

Definition.—Bailment is a delivery of goods or money by one person to another in trust, for some special purpose, upon a contract, expressed or implied, that the trust shall be faithfully executed.

Names of Parties.—The owner of the goods bailed is termed the bailor, and the person to whom they are delivered or bailed, the bailee. The Responsibility of Bailees is governed by the consideration whether, in the case of the thing bailed, they have been guilty of ordinary neglect, gross neglect, or slight neglect. Ordinary neglect is the omission of that care which every man of common prudence takes of his own concerns. Gross neglect is want of that care which every man of common sense, how inattentive soever, takes of his own property. Slight neglect is the omission of that diligence which every circumspect and thoughtful person uses in securing his own goods and chattels.

The Rules Governing the law of ballments are: 1. A bailed who derives no benefit from his undertaking is responsible only for gross neglect, or, in other words, for a violation of good faith. 2. A bailed who alone receives benefit from the ballment, is responsible for slight neglect. 3. When the ballment is beneficial to both parties the balled must answer for ordinary neglect. 4. A special agreement of any bailed to answer for more or less, is in general valid. 5. All balleds are answerable for actual fraud, even though the contrary be stipulated. 6. No balled is chargeable for a loss by inevitable accident, except by special agreement.

A Borrower for Use is responsible for slight negligence.

A Pawnee is answerable for ordinary neglect.

A Depositary, one who receives goods or money to be kept for the bailee without a recompense, is responsible only for gross neglect.

A Carrier of goods or money without reward is responsible only for gross neglect, or breach of good faith.

A Private Carrier for hire, by land or water, is answerable for ordinary neglect.

The Hirer of a Thing is answerable for ordinary neglect.

A Workman for Hire must answer for ordinary neglect of the goods intrusted to him, and apply a degree of skill equal to his undertaking.

All Bailees Become Responsible for losses by casualty or violence, after their refusal to return the things bailed, on a lawful demand.

Borrowers and Hirers are answerable in all events, if they keep the things borrowed or hired after the stipulated time, or use them differently from their agreement.

Depositaries and Pawnees are answerable, in all events, if they use the things deposited or pawned.

Innkeepers.-An innkeeper is responsible for the acts of his

domestics, and for thefts, and is bound to take all possible care of the goods of his guests. He is regarded as an insurer, responsible for any injury or loss, not caused by the act of God; the common enemy, or the neglect or fault of the owner. When, however, a guest has the exclusive keeping and occupancy of a room, the innkeeper is not liable, nor where the guest takes upon himself the care of the goods, or neglects to use ordinary caution.

Warehousemen are bound only to take reasonable and ordinary care of the goods deposited with them. Thus, they would not be liable for thefts, or for loss or injuries caused by rats, unless occasioned by their want of proper care, etc. Their liability commences as soon as the goods arrive and the crane of the warehouse is used to hoist them in, and it terminates the moment they leave his premises. The warehouseman's liability is usua, y fixed or limited by receipts which they give for the goods deposited, and which pass from hand to hand by assignment. See Warehousing.

Wharfingers.—A wharfinger is one who keeps a wharf for the purpose of receiving goods on hire. His responsibility is similar to that of a warehouseman.

# BANKRUPTCY

Bankruptcy is a system of procedure for the administration of the affairs of insolvent debtors, or bankrupts, the distribution of their property among their creditors, and the discharge of the debtors from further accountability for their debts.

The National Bankruptcy Law, approved July 1, 1898, provides for a complete system of bankruptcy, to be uniform throughout the United States and administered by the United States courts.

Voluntary Bankrupts.—Any person, except a municipal railroad, insurance or banking corporation, shall be entitled to the benefit of this act as a voluntary bankrupt;

Involuntary Bankrupts.—Any natural person (except a wagecarner or a person engaged chiefly in farming or the tillage of the soil), any unincorporated company, and any moneyed or business, or commercial corporation, except a municipal railroad, insurance or banking corporation, owing debts to the amount of one thousand dollars or over, may be adjudged an involuntary bankrupt upon default or an impartial trial, and shall be subject to the provisions and entitled to the benefits of this act. Private bankers, but not national banks or banks incorporated under State or Territorial laws, may be adjudged involuntary bankrupts.

Acts of Bankruptcy.—The National Bankrupt Law defines an act of bankruptcy by a person to consist of his having conveyed, transferred, concealed, or removed, any part of his property, with intent to hinder, delay, or defraud his creditors, or any of them; or transferred, while insolvent, any portion of his property to one or more of his creditors, with intent to prefer such creditors over his other creditors; or suffered or permitted, while insolvent, any creditor to obtain a preference through legal proceedings and not having at least five days before a sale or final disposition of any property affected by such preference vacated or discharged such preference; or made a general assignment for the benefit of his creditors; or admitted in writing his inability to pay his debts and his willingness to be adjudged a bankrupt on that ground.

Proceedings.-A bankrupt may of his own motion offer to surrender his property to the administration of the United States court and ask for his discharge in voluntary bankruptcy, or creditors may apply to the court to compel a bankrupt to turn over his property to be administered under the act for the benefit of the creditors. A petition may be filed against a person who is insolvent and who has committed an act of bankruptcy, within four months after the commission of such act. Such time shall not expire until four months after the date of the recording or registering of the transfer or assignment, when the act consists in having made a transfer of any of his property with intent to hinder, delay or defraud his creditors or for the purpose of giving a preference or a general assignment for the benefit of creditors, if by law such recording or registering is required or permitted; or if it is not, from the date when the beneficiary takes notorious, exclusive or continuous possession of the property, unless the petition creditors have received actual notice of such transfer or assignment.

The Proceedings Once Inaugurated and the adjudication in bankruptcy having been made, the court proceeds to take charge of the bankrupt's property, and administer the same for the benefit of the creditors, and determine all questions which may arise in regard to the rights of the bankrupt or the creditors, either as against the bankrupt or as between themselves in accordance with the above-prescribed powers. A trustee is appointed, either selected by the creditors at a meeting called for that purpose or, in case they fail to select a trustee, one is appointed by the Court. His duty is to collect the property, realize on the same in such manner as may be for the best interests of all concerned, and ultimately distribute the same among the creditors in such proportions as they may be adjudicated to be entitled thereto.

Referees.—As all questions, both of law and fact, in relation to the property or the rights of the various parties must be decided in the bankruptcy proceeding, it is provided that referees be appointed, who are charged with the duty of hearing the allegations and testimony of all parties and deciding all such questions that may arise. Each case, as it comes up, is assigned to some referee, whose duty it is to adjudicate and pass upon all such questions arising therein in the first instance, the right being reserved to any parties to appeal from the decision of the referee to the United States District Court.

The Duties of the Referee are substantially of a judicial character, and he occupies much the position of a judge of primary resort, subject to an appeal to the Court, and is required to take the same oath of office as that prescribed for judges of the United States courts. By Section 38 of the act, the referee is invested with jurisdiction to consider all petitions referred to him by the clerks, make adjudications or dismiss the petition; exercise the powers vested in courts of bankruptcy for the administering of oaths to and the examination of witnesses, and for requiring the production of documents in proceedings before him, except the power of commitment, and, in the absence of the Judge, to exercise all his powers for taking possession and releasing the property of a bankrupt, and to perform such part of the duties of the courts of bankruptcy as they may prescribe by rules and orders, excepting only questions arising on applications of bankrupts for compositions or discharges.

All questions in regard to the property or assets or rights of the creditors and persons interested come before the referee for hearing and determination, subject to the right of appeal. After the rights of all parties have been ascertained and determined, and the property has been realized upon, it is distributed among the creditors.

Notice to Creditors.—Detailed provisions are made in the act for giving notice to all creditors and other persons interested in the estate of the pendency of the proceedings, the payment and declaration of dividends and other matters, and providing methods whereby all parties interested may be heard on all subjects arising in the course of the proceedings.

Compromises.—Provision is made in the act for allowing bankrupts to compromise or settle with their creditors by a procesling known as composition proceedings, whereby, if a bankrupt
and a majority of his creditors agree upon some basis of attlement, the same, if approved by the Court, shall become
binding upon all creditors. The decision of the question as to
the approval of compositions and granting discharges to a bankrupt from his debts is specifically received by the act to the
judges of the United States courts, but the Court, by virtue of
its general powers, may refer such matters to the referee to take
testimony and report to the Court his opinion thereon.

Defense.—It is made a complete defense to any processlings in bankruptcy to allege and prove that the party processled against was not insolvent at the time of the filing of the petition against him.

Duties of Bankrupts.-The bankrupt shall (1) attend the first meeting of his creditors, if directed by the court or a julge thereof to do so, and the hearing upon his application for a discharge, if filed; (2) comply with all lawful orders of the court; (3) examine the correctness of all proofs of claims filed against his estato; (4) execute and deliver such papers as shall be ordered by the court; (5) execute to his trustee transfers of all his property in foreign countries; (6) immediately inform his trustee of any attempt, by his creditors or other persons, to evade the provisions of this act, coming to his knowledge; (7) in case of any person having to his knowledge proved a false claim against his estate, disclose that fact immediately to his trustee; (8) prepare, make oath to, and file in court within ten days, unless further time is granted, after the adjudication if an involuntary bankrupt, and with the petition if a voluntary bankrupt, a schedule of his property, showing the amount and kind of property, the location thereof, its money value in detail. and a list of his creditors, showing their residences, if known (if unknown that fact to be stated), the amount due each of them. the consideration thereof, the security held by them, if any, and a claim for such exemptions as he may be entitled to, all in triplicate, one copy of each for the clerk, one for the referee. and one for the trustee; and (9) when present at the first meeting of his creditors, and at such other times as the court shall order, submit to an examination concerning the conducting of his business, the cause of his bankruptcy, his dealings with his creditors and other persons, the amount, kind, and whereabouts of his property, and, in addition, all matters which may affect the administration and settlement of his estate; but no testimony given by him shall be offered in evidence against him in any criminal proceedings.

Provided, however, that he shall not be required to attend a meeting of his creditors, or at or for an examination at a place more than one hundred and fifty miles distant from his home or principal place of business, or to examine claims except when presented to him, unless ordered by the court, or a judge thereof, for cause shown, and the bankrupt shall be paid his actual expenses from the estate when examined or required to attend at any place other than the city, town, or village of his residence.

Costs.—The aim of the act has been to make the expense of the proceedings depend largely upon the amount of the property involved, and the compensation of the referees is fixed substantially at 1 per cent on the amount distributed to the creditors in ordinary cases, where the assets are distributed by the Court, and one-half of 1 per cent in composition cases, and the trustees who have charge of the actual management of the bankrupt's property receive as compensation such commissions on amounts paid out by them as dividends as the Court may allow, not to exceed, however, 3 per cent on the first \$5,000, 2 per cent on the second \$5,000, and 1 per cent on all sums in excess of \$10,000.

Discharge of Debtor.—Any person may, after the expiration of one month and within the next twelve months subsequent to being adjudged a bankrupt, file an application for a discharge, or if it shall be made to appear that the bankrupt was unavoidably prevented from filing such application within said time, it may be filed within the next six months. The judge shall hear the application for discharge, and all such pleas and proofs as may be made in opposition thereto. Applicants are to be discharged unless they have committed offenses punishable by imprisonment, as provided in the act, or with fraudulent intent to conceal their true financial condition and in contemplation of bankruptcy, destroyed, concealed or failed to keep books of account or records from which their true condition might be ascertained.

The confirmation of a composition shall disharge the bankrupt from his debts, other than those agreed to be paid by the terms of the composition, and those not affected by a disharge. Discharges may be revoked on the ground of fraud

Liability of Co-Debtor or Surety.—The liability of a person who is a co-debtor with, or guaranter, or in any manner a surety for a bankrupt, shall not be altered by the discharge of such bankrupt.

Effect of Discharge.—A discharge in bankruptcy shall release a bankrupt from all his provable debts except such as are due as a tax levied by the United States, the State, county, district, or municipality in which he realler; judgments in actions for fraul, or obtaining property by false preter as or false representations, or for willful and malicious injuries to the person or property of another; debts which have not been duly scheluled in time for proof and allowance, with the name of the creditor, if known to the bankrupt, unless such creditor had notice or actual knowledge of the proceedings in bankruptcy; or debts which were created by his fraul, embezzlement, misappropriation, or defalcation, while acting as an officer or in any flduciary relation or capacity.

## BONDS

A Bond is an instrument in writing whereby one person binds himself (or several persons bind themselves) to another or others to pay a sum of money, to abile by an award, or to do some lawful act, or not to do some particular thing or things specified in the condition of the bond.

Names of Parties.—The person who gives the bond and so binds himself is called the *obligor*, the person receiving the bond is called the *obligee*.

Kinds of Bonds.—If there is no stipulation in the bond that the obligor shall suffer any penalty in case of nonperformance, the bond is called a *simple* one. But there generally is a condition added that if the obligor does some particular act, the obligation shall be void, or else shall remain in full force, as payment of rent, performance of covenants in a deed, or repayment of a principal sum of money borrowed of the obligee, with interest; which principal sum usually is one-half of the penalsum specified in the bond.

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Seal Required.—Bonds, at common law, must be under seal, the seal making proof of consideration unnecessary.

Forfeiture.—In case of a failure to perform the condition, the obligee can recover only his vrincipal, interest, and expenses, if the bond was given to secure the payment of money; and if given to secure the performance of a covenant, he can recover only reasonable damages for the breach.

Action On.—Bonds belong to the class of obligations known as specialties, and, like other sealed instruments, are in force by statute in most of the States for twenty years, or during such time as the special statute of the State may provide.

### Form of Simple Bond

Know all Men by These Presents, That I, William Jenkins, of the city of Dallas. State of Texas, am held and hrinly bound unto James Stevens, of the city and State aformed, in the sum of Five Hundred Dollars, lawful money of the I nite! States, to be paid to the said James Stevens, or his amounts, to which payment, well and truly to be mode on or before the first day of May 1912, I bind myself, my hors, executors, and administrators, firmly by these presents.

In Testimony Where I, I, William Jenkins, have set my hand and seal to this instrument on the first day of March, in the year of our Lord one thousand nine hundred and eleven.

WILLIAM JENKINS. [SEAL]

Executed and delivered in presence of William Roddens, Louis Woods.

### General form of Bond, with Condition

Know all Men by These Presents, That I, John Taylor, of Lincoln, in the county of Logan, State of Illinois, am firmly bound unto Harvey Newman, of the place aforesaid, in the sum of One Thousand Dollars, to be paid to the said John Taylor, or his legal representatives; to which payment, to be made, I bind myself, my heirs, executors, and administrators firmly by these presents.

Scaled with my seal. Dated the fifth day of June, A. D. 1911.

The condition of the above obligation is such that, if the above bounden John Taylor, his heirs, executors, or administrators, shall promptly pay the sum of Five Hundred Dollars in four equal annual payments from the date hereof, with annual interest, then the above obligation to be of no effect; otherwise to be in full force and value.

JOHN TAYLOR. (BEAL)

Signed, sealed, and delivered in presence of RICHARD LOW.

#### Bond to a Corporation

Signed, scaled and delivered }
in presence of
FRED BROWN.

## Bond of Indomnity

Know all Men by There Press is. That 1, 1, 10 - Party of 11 - 1. Virginia, am held and firmly level to Warry Black of the place, in the sum of Two Thou and Denars, but a full to the adverged Bazelton, his executors, or administrator, for the party that the truly to be made, I do bind my lf, by here, we do not be limited for limit by these presents.

Scale I with my scale. Dated the 10th day of he reary, 1911.

Whereas, Warren Hazelteen is a cut to e old the second of the second of

Now the condition of the obtained as which that it the all liarry is Hall shall fully perform all the distribution of the obtained and correctly account for an ipay over all the distribution of the distribution of the obtained as a second for all the obligation shall be void, otherwise to read in Indian of the obligation shall be void, otherwise to read in Indian of the obligation shall be void, otherwise to read in Indian of the obligation shall be void, otherwise to read in Indian or the obligation of the obligation obligation of the obligation obligation of the obligation oblights obligation obligation

PHILLIP BARBOWS. (SEAL)

Signed, sealed and delivered a in presence of Hiram Jones,
William Smith.

# BROKERS

A Broker is an agent who is employed to transact business for others. His province is to find buyers and ellers and bring them together to make their bargains, or to transact for them the business of such buying and selling. In law, he is regarded as a middleman, or intermediate negotiator between the principals on both sides of the negotiation conducted by him.

Classes of Brokers.—Brokers are divided into dult rent classes, according to the nature of the property in which they deal.

Bill and Note Brokers are those who buy and sell for others drafts, bills of exchange, and notes.

Exchange Brokers buy and sell uncurrent money, and deal in

exchanges relating to money in different countries.

Insurance Brokers act for the owners of property in obtaining insurance upon it, settling losses, etc.

Merchandise Brokers buy and sell property, known as merchandise, for others.

Pawnbrokers, though called brokers, are really principals.

Real Estate Brokers buy and sell real estate or mortgages on real estate for others.

Shipping Brokers deal with the purchase and sale of vessels,

procure freights, etc.

Stock Brokers buy and sell for others the stock and bonds of railroads, etc.

# MERCHANDISE BROKER'S FORMS

## Memorandum to be Given to the Seller

New York, June 10 1911.

MERRIS. WHITE, IUDLOW & Co.,

41 Br alway.

We have sold to-day on your account to William II I worth 450 22d St., the following goods: 1,000 ounces Sulphate of Quinne B and G, at \$2.75 Re-tilly. per ounce. MERRIAM & CHAPIN, Brokers.

# Memorandum to be Given to the Buyer

New York, June 10, 1911.

MR. WILLIAM HOLAWORTH,

450 221 51.

We have to-day for your account, from White, Ludlow & Co., the following. 1,000 ounces Sulphate of Quinine B. an I G. at \$2.75 per ounce. Respectfully.

MERRIAM & CHAPIN, Brokers.

# COMMISSION MERCHANTS

A Commission Merchant is one to whom goods are sent for sale, and who charges a certain per cent on the price of the goods sold for his service, which is called commission.

Farmers and manufacturers who have large quantities of goods to sell send them to the cities to the commission mer-

chant, who sells them for them.

Commission merchants are, therefore, agents to sell and the owners of the goods are their principals. The duties and responsibilities are in general like those of other agents.

Duties.—The whole business is one of contract for porsonal services. The merchant's chief aim is to sell the goals for the best price he can get, and pay over the money when collected, after he has deducted his commission. He must obey the orders of his principal, conduct the business skillfully and care fully, and render true accounts when called upon. He must not make his own interests averse to those of his principal.

Authority.—This is as conferred upon him by special agreement, but often the commission merchant is left to confur t the business according to his own judgment and in the way such business is usually conducted.

Responsibility to Principal.—If he violates in any way the agreement, disobeys instructions, or is negligent, then he is responsible to his principal for any loss that may result from it.

When left to exercise his own judgment, he is not responsible for any loss that may result from making a mistake.

If he be given authority to sell on credit, and the buyer falls to pay, the owner must lose, not the commission merchant.

The Commission.—To this he is entitled when he has performed his service. When selling on credit, he is entitled to his commission when the sale is effected, whether the principal gets his pay or not.

But if in any way he breaks his contract, he loses his claim to any commission on that transaction.

Guaranty Commission.—Sometimes the commission is, by agreement, made to guarantee payment by the party to whom the goods are sold. In such cases he is responsible to the owner if the buyer does not pay.

Advances.—Frequently the commission merchant advances to the owner, before he has made any sales, some portion of what he thinks the goods are worth.

When the sale is made he deducts this amount, with his commission, from what he realizes from the sale.

Lien upon Goods.—His principal can revoke his authority and take his goods away at any time, but if the merchant has in the meantime incurred any expense he can hold the goods until his expenses or outlays are made good.

The rule in law is: A commission merchant has a right to keep any goods of his principal's which are in his hand until

he has been paid all commission, advances and expenses due him from the owner.

By this general lien he can keep any goods, whether the debt arose in connection with them or with others.

Relation to the Buyer.—If the owner of the goods is made known to the buyer, then the commission merchant assumes in general no responsibility himself, but if he says nothing about who owns the goods, or sells them as his own, acting as principal, he assumes all the responsibility of the principal.

# CORPORATIONS

A Corporation is a body created by law, composed of individuals united under a common name, invested with certain powers and functions, and perpetuated by a succession of members, so that the body continues the same notwithstanding the change of the individuals who compose it.

How Created.—Corporations are created by special character of the legislature, or formed by voluntary association of members under a general law. The necessary forms for organizing a corporation under the laws of the different States are usually to be had on application to the Secretary of State, and serve as a guide to the proper steps to be taken to effect an incorporation

The Charter is the instrument embodying the rights and privileges granted to the incorporated body.

The Capital Stock is the money paid in to carry on the business of the corporation.

A Share is one of the equal parts into which the stock or capital is divided.

Stockholders are the owners of one or more shares of stock.

A Certificate of Stock is a written statement setting forth the number and value of the shares to which the holder is entitled.

The Par Value of stock is the amount named as each share; it is also called the nominal value.

The Market Value is the sum for which shares will sell. They are said to be at par when they sell at their nominal value, above par, or at a premium, when they sell for more, and below par when they sell for less than their nominal value.

The Premium or Discount on stock is computed at a certain per cent on the original nominal value of the shares.

Preferred Stock is given to secure some obligation of the cor-

poration and takes preference of the ordinary or common stock, and the holders are entitled to a fixed per cent out of the earnings of the corporation before a dividend can be declared on the common stock.

Dividends are the declared shares of the profits due the stockholders after all expenses have been paid.

How Corporations Act.—A corporation acts through its officers or authorized agents. Its business must be done in its corporate name and in harmony with its charter.

Seal.—Every corporation is required to have what is called a corporate seal, which consists of an engraved stamp bearing some device or inscription identifying the corporation, and an impression of this seal is required to be attached to certain written instruments executed by the corporation. Its use is not necessary in ordinary business transactions, but only in the execution of solemn instruments, such as deeds, bonds, mortgages, etc.

Liability.—Corporations are liable for contracts made by their duly authorized agent within the scope of his authority, as well as for trespasses or torts committed by such agent under authority of such corporations.

The stockholders are individually liable to the corporation's creditors to extent fixed by statute under which the company is incorporated. Usually they are not made liable beyond the amount of stock held by them.

Suits By and Against.—A corporation may be plaintiff or defendant in a suit at law or in equity. The notice or summons is served upon any of the executive officers.

Guaranteed Stock is stock upon which a certain dividend is guaranteed.

Watered Stock is stock issued to shareholders without any increase of the actual capital of the corporation. Sometimes the charter of a corporation forbids the declaring of a dividend exceeding a certain per cent of the par value of the stock. In this case the directors may find it desirable to "water" the stock, that is, issue additional shares. This increase in the number of shares of course reduces the percentage of dividend, although the same profit, in the aggregate, is secured to the stockholders.

Corporations of One State may do Business in Another.—As a general rule corporations organized under the laws of one State are privileged to do business in other States, and this fact is

taken advantage of by persons who desire to organize with a small paid up capital and wish to do business in a State that requires a large proportion of the capital to be paid up. For instance, a company can organize in Maine for \$100,000 on a paid up capital of \$25 and do business in a State that requires a large proportion of the capital stock of corporations organized therein to be paid up. This is why many corporations doing business in the large cities of Massachusetts, New York, etc., are organized under the laws of New Jersey.

Dissolution of Corporations.—Corporations are in theory immortal, but practically they can be terminated in various ways. If a corporation violates its charter, it loses the right to continue its existence. It may also be terminated by an act of the legislature when the law that created it has reserved the right to dissolve or to abolish it. A corporation limited as to time is of course dissolved at the expiration of such time.

When dissolved, the debts of the corporation must be paid out of the assets, and what remains beyond that is divided among the stockholders.

Land Granted to a Corporation reverts back to the grantor when it is no longer used for the purpose for which it was granted. If used for another purpose, or not used at all, the grantor can claim it as forfeited.

The Stock Exchange is a place where "stocks," or in other words, securities of governments, railroads and other corporations, are bought and sold. The London and New York stock exchanges are the chief associations of their kind in the world.

Stock exchanges perform a number of useful functions, only a few of which can be indicated here. The body of dealers find it convenient, if not necessary, to have a place where they may meet to transact business among themselves. Here they have the advantage of the latest intelligence, of the exchanges themselves, from all the leading associations of the same kind throughout the world. The result is that, owing to the keen competition of the buyers and sellers, prices are promptly adjusted to existing conditions of supply and demand, and excessive and ruincus fluctuations in the prices of securities are thus obviated. The declaration of a good or bad dividend on mining or railroad shares, the report of an increase or decrease in the output or traffic in the concern often brings about an undue exaltation or depreciation in the market value of its securities. The stockbroker or dealer in the case of an undue confi-

dence sells his shares freely, and thus arrests the rise. In case of an irrational panic he buys largely and thus arrests a fall.

The original cost of a seat in the New York Stock Exchange was \$400. Prices now range from \$50,000 to \$80,000 per seat.

Trusts.—A trust, strictly speaking, is an organization for the control of several corporations under one direction, usually effected by the device of a transfer, by the stockholders in each of the corporations concerned, of at least a majority of the stock to a central committee, or board of trustees, which issues in return, to such stockholders, respectively, certificates showing in effect that although they have parted with their stock and the consequent voting power, they are still entitled to dividends, or to their share in the profits.

The word 'trust,' however, has come to have a much broader application, and as now commonly understood means "any consolidation, combine, pool, or agreement of two or more competing concerns, which establishes a limited monopoly, with power to fix prices or rates in any industry or group of industries."

National and State laws have recently been passed making some of the more objectionable forms of trusts unlawful and subjecting the others to State supervision and control.

# Form of Application for Incorporating

STATE OF ILLINOIS, City of Springfield, Secretary of State.

We, the undersigned, Chas. Williams, Walter Baker, and Howard Calhoun, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled "An Act Concerning Corporations," approved April 18, 1872, and all acts amendatory thereof, and that for the purpose of such organization we hereby state as follows, to wit:

 The name of such corporation is the Springfield Glove Manufacturing Company.

The object for which it is formed is to carry on the business of manufacturing gloves in all its branches, and to sell the product so manufactured.

The capital stock shall be Three Hundred Thousand (\$300 000)

4. The amount of each share is One Hundred (\$100) Dollars.

5. The number of shares three thousand (3,000).

6. The location of the principal office is in Springfield, State of Illinois.

7. The duration of the corporation shall be seventy (70) years.

Chas. Williams. Walter Baker, Howard Calhoun. DEEDS 205

The document must bear the following:

#### Indorsement on the Back

STATE OF ILLINOIS, City of Springfield, } as.

I, Charles Phillips, a notary public in and for the said c ty of Springfield, and State aforesaid, do hereby certify that on this 15th day of March, A. D. 1911. personally appeared before me Chas. Williams, Walter Baker, and Howard Calhoun, to me personally known to be the same persons who executed the foregoing statement, and severally acknowledged that they executed the same for the purposes therein set forth.

In witness whereof, I have hereunto set my hand and seal the day and year above written.

CHARLES PHILLIPS, Notary Public.

# DEEDS

A Deed is an instrument in writing and under seal, whereby real estate or some interest therein is conveyed.

The Seal required by the common law consists of an impression upon wax, wafer or other tenacious substance, but in some of the States a scroll or circle made with a pen around the word seal or in place of the seal is sufficient. In some States no seal is required except in case of deeds by corporations.

Names of Parties.—The maker of the deed is called the grantor, the party to whom it is delivered the grantee.

Requisites of a Valid Deed.—1. Competent parties. 2. Consideration. 3. The deed nust be reduced to writing. 4. It must be duly executed and delitered. If signed by an agent or attorney, the seal should be that of the principal, and the authority of the agent to use the seal should itself be under seal. To be effective against third parties it must be duly acknowledged and recorded. (See Acknowledgments.)

The Consideration on which the deed is based may be either good (as for love and affection' or valuable (as for money or other property). It is customary, though not necessary, to mention some nominal sum, as one dollar, even when no money price is paid.

The Property to be conveyed should be described by bound-

aries as minutely as possible.

When Wife Must Join.—If the wife's dower or homestead is to be released, she must join with the husband in the deed.

A husband and wife may, by a joint deed, convey the real estate

of the wife; and in some of the States her acknowledgment must be taken apart from her husband. (See Acknowledgments.)

Acknowledgment.—The mode and effect of an acknowledgment or of a deed is governed by the law of the State where the land lies, and not by that of the place where the acknowledgment is taken. Where the deed is executed by an attorney in fact, it is customary to have the power of attorney acknowledged by the principal and the deed acknowledged by the attorney.

Separate Acknowledgment by wife is required in Alaska, Arkansas, Delaware, District of Columbia, Florida, Georgia, Idaho, Kentucky, Louisiana, Montana, Nevada, New Jersey, North Carolina, Oregon, Pennsylvania, South Carolina, Tennessee, and Texas.

Witnesses.—It is always best that the execution of the deed should be witnessed, even though not required by statute. A witness should have no interest in the deed. Therefore a wife is not a proper witness of a deed to her husband. One witness to the execution of deeds is required in District of Columbia, Maine, Maryland, Nebraska, New Jersey, Oklahoma, Utah, Wyoming. Two witnesses to the execution of deeds are required in Arkansas, Connecticut, Florida, Georgia, Louisiana, Michigan, Minnesota, New Hampshire, Ohio, Oregon, South Carolina, Texas, Verment, and Wisconsin. If witnesses die, proof of their handwriting will be admitted; if this cannot be obtained, proof of the grantor's handwriting is sufficient.

The Estate Passes upon the actual delivery of the deed. If it is retained until the grantor's death, it becomes void and of no effect. But where it is delivered to a third person to transfer to the grantee upon the happening of some event, as the death of the grantor, the estate will pass upon that final delivery. Such a deed is called an escrow.

Recording.—The object of the public recording of a deed is not to give validity as between the grantor and grantee, but to protect the grantee against subsequent bona fide purchasers or mortgagees, and against the grantor's creditors.

Summary.—Deeds should be signed, sealed, witnessed, acknowledged, delivered, and recorded.

Caution.—Do not purchase real estate without first carefully examining the title, and always procure an abstract of title before advancing money or signing contract for purchase of property.

DEEDS 207

# DIFFERENT KINDS OF DEEDS

A Warranty Deed is so called because the grantor covenants to warrant and defend lands mentioned against all persons, and to the extent specified.

A General Warranty covenants and warrants against all persons whosoever.

A Special Warranty covenants and warrants only against one person, his heirs and those claiming under him.

A Quit Claim Deed is one which conveys all the interest which the granter possesses, whatever it may be in the lands specified, without containing any warrants. By it the granter merely quit claims any interest he may have, but does not warrant his title.

A Trust Deed conveys property to persons to hold for the use of some other person who is entitled to the proceeds, title, or use of the property.

Tax Deeds are made by a public officer after sale of the land for non-payment of taxes. They differ from common deeds in that they do not in themselves transfer title. That is to say, any irregularity or illegality in the sale or other proceedings on which the deed is based will invalidate the deed itself. In many States the grantee of such a deed holds the property subject to the right of the owner to redeem it within a specified time, by paying taxes, costs and interest on the purchase money, at a fixed rate, greater than the usual rate of interest.

Deeds by Executors. Administrators, or Guardians generally contain no warranty; and every requisition of the law must be complied with to give a good title.

Forms of Deeds conveying land are prescribed by some States, and such form should generally be used.

### Warranty Deed

This Indenture, made this tenth day of April, in the year of our Lord one thousand nine hundred and eleven, between Howard Denman and Mary Denman, his wife, of the village of Bristol, in the County of Morgan, State of Ohio, party of the first part, and William A. Martin, of the City of Columbus, in the County of Franklin, and State of Ohio, party of the second part,

Witnesseth, That the said party of the first part, for and in consideration of the sum of Five Thousand (\$5,000) Dollars, in hand, paid by the said party of the second part, the receipt whereof is hereby acknowledged, have granted, bargained, sold, remised, released, conveyed, aliened, and confirmed, and, by these presents, do grant, bargain, sell, remise, release, convey, alien, and

confirm unto the said party of the second part, and his heirs and assent forever, all that certain piece, or parcel, of land it at i and being in the Village of Bristol, County of Morgan, and State of OAE, and the follows, to wit:

The Northeast Quarter of Section Fifteen (15), in T - make Twenty o gas (28), South of Range Nine (0), West of the First Principal Minima, containing One Hundred and Fifty acres by go ernment survey.

Together with all and singular the hered taments to reto believed in any way appertaming. To How and to Hold the said process as be rised, with the appurtenances, unto the said party of the second part, all to his heirs and assigns forever. And the said party of the first part, the heirs, executions, and administrators, do covenant, grant, bargain, and a recent and with the said party of the second part, his heirs and assigns, that at the of the cascaling and delivery of these presents they are will define the estate of inheritance in law, in fee simple, and have good right, full power and lawful authority to grant, bargain, sell, and convey the same in manner and form aforewald; that they are free from all other grant, bargains, sales, here, taxes, assessments, and encumbrances of what kind or nature will account and that they will, and their heirs, executors, and administrators shall correct and defend the same against all law() to large whatever

In Wilness Whoreof, The said party of the first part have beceunto set their hands and seals the day and year first above written

HOWARD DENMAN, [REAL]
MART DENMAN. [GRAIJ

Signed, sealed and delivered }
in the presence of
H. R. Moyen,
B. J. Stack.

[To be duly acknowledged and recorded]

## Quit Claim Deed

This Indenture, made the first of March, in the year of our Lord one thousand nine hundred and eleven, between James R. Ward and Louise L. Ward, his wife, of Hastings, Barry County, State of Michigan, parties of the first part, and Myer A. Walker, of Richland, County of Kalamazoo, State of Michigan, party of the accord part,

Witnesseth, That the said parties of the first part, for and in consideration of the sum of One Dollar to them in hand paid by the party of the second part, the receipt whereof is hereby confessed and acknowledged, do, by these presents, grant, bargain, sell, remise, release, and forever quit claim unto the party of the second part, and to his hears and assigns forever, all that certain piece, or parcel, of land situated and being in the County of Barry and State of Michigan, and described as follows, to-wit:

The Southwest quarter of Section number Nine, in Township number Three, South of Range number Five, West, containing One Hundred and Fifty Acres of Land, be the same more or less. Together with all and singular the hereditaments and appurtenances thereto belonging, or in anywise appertaining. To Have and To Hold the said premises, as above described.

to the said party of the second part, and to his heirs and assigns, to the sole and only proper use and benefit of the said party of the second part, his heirs and assigns, forever.

In Witness Whereof. The said parties of the first part have hereunto set ther hands and seals the day and year first above written.

JAMES R. WARD, [SEAL] LOUISE L. WARD. [SEAL]

Signed, sesied, and delivered in the presence of Walter R. Wing, Chas. Commons.

[To be duly acknowledged and recorded.]

# EMPLOYER AND EMPLOYEE

# RELATIVE RIGHTS AND OBLIGATIONS OF

An Agreement to work for another is a very common kind of contract in business life. (See Contracts)

There are two general kinds:

1. To do some particular thing.

2. To do whatever the employer may direct.

Brokers, commission merchants, lawyers, tradesmen and many others belong to the first class; clerks and all others employed to do general work belong to the second class.

The act of employing in both classes is a contract in which

each party agrees to do a certain thing.

The Compensation.—All agreements to employ contain a promise to pay for the services rendered, which promise is either expressed or implied.

When services are requested there is always an implied promlse to pay what they are worth, that is to say, the price usually

paid by others for such services.

Employee's Agreement.—The person employed to do a certain work must fulfill his agreement, but he need not do anything else. It is an implied part of every agreement to render services that the work will be done with ordinary skill, care and diligence. A failure in this makes the employee forfeit his compensation, no matter how much he has done. If another does the work, the party to the agreement is in all respects responsible for the work done.

Loss or Injury.—When one has another's property in his possession he is expected to take all possible care of it; if through his carelessness it is lost or injured the careless one is not only not entitled to any compensation for what work he has done, but must compensate the owner for his loss or injury. For bears occasioned otherwise he is not responsible. (See Bailment.)

Length of Employment.—Where in the second class a person is employed to perform a certain class of duties, the lime for which he is hired is an important element, whether that time be a day, a week, a month, a year or longer. When no time of service is specified, the time when payment is made will indicate the length of employment. Thus, if a clerk messenger, etc., is hired for no fixed time, but at so many dollars a week, or a month, it is a hiring for a week or a month, respectively. If the work continues the next week or month in the same man ner, it is a new contract on the same terms.

Discharge of Employee.—An employee may be discharged at the end of his time without any cause or previous notice. If hired at so much per week and for no definite time he may be discharged at the end of any week, or even during the week, and he has no right to insist upon working after he is discharged. If, however, the discharge is without good cause, i.e., if the work is all right, he is entitled to payment for the whole period. If, on the other hand, there was good reason for the discharge, arising from his own fault, he is entitled to no pay for any of that period.

Leaving Services.—An employee can leave at the end of the time without giving notice. But if he leaves before the expiration of the time he is entitled to no pay for that period, no matter how much of the time he has worked.

Thus, if he agreed to stay a month and left at the end of three weeks he would be entitled to nothing. The general rule applies here as elsewhere. Each party must keep his part of the contract if the other does, but need not if the other does not. (See Contracts.)

## GUARANTY

A Guaranty is a promise or undertaking to pay the debt of another in case the latter does not pay it.

Names of Parties.—The person who makes the promise is called the *guarantor*, the person in whose behalf the promise is made, the *principal*, and the person to whom the promise is made, the *guarantee*.

Who are Guarantors.—Every surety is a guarantor, and every indorser of a negotiable instrument is in fact a guarantor, but with peculiar rights and duties not known to common guarantors. (See Negotiable Notes.)

Consideration.—Like every other binding promise a guaranty must be founded upon a good consideration, but it is sufficient, however, if the person for whom the guarantor becomes surety receives a benefit, or the person to whom the guaranty is given suffer inconvenience, as an inducement to the surety to become guarantor for the principal.

Must be in Writing.—Being a promise to pay a debt of another, a guaranty is required to be in writing (see Contracts). But where one who promises to pay the debt of another receives therefor an independent consideration, the promise is deemed a promise to pay his own debt, and need not be in writing. Thus, if two parties go together into a shop or warehouse, and upon one selecting and giving an order for goods, the other engages verbally to pay for those goods in case the other does not, in whatever form of words that promise is given, he is not bound by it—it must be reduced to writing and signed by the guarantor. But if the guarantor tells the merchant that he will be responsible for goods purchased by the other and assents to having the goods charged to himself, the promise need not be in writing to bind the guarantor.

Any Material Change in the extent, terms, or character of the principal's liability discharges the guarantor, even though the change be in no way injurious to him. He may assent to it, however, and will then be liable.

Where there are several guarantors, and one of them is obliged to pay the debt, he can look to the others for their proportion.

Indemnity.—A guaranter ought to take care to be indemnified against loss, in the event of being called on to pay the debt. With this view indemnities are given (frequently, but not always or necessarily, by bond), holding harmless him who, under an undertaking to be responsible for the debt or engagements of another, becomes chargeable or liable for the debt.

Guaranty Companies.—There are companies which transact a guaranty or surety business, from whom, for a consideration, persons on assuming a place of financial responsibility where an indemnity bond is required, can obtain the necessary bond.

### Guaranty for the Performance of a Contract

For a good and valuable consideration, by us received, we, the unfersigned, do hereby guarantee a faithful compliance with the terms of the above (or within) agreement upon the part of the said contractor, Righard Unger.

Done at Elkhart, Elkhart County, State of Indiana, this 15th day of June, A. D. 1911.

WALTER HANKING, (SEAL) FRANK KLINE, [SEAL]

Signed, sealed, and delivered in the presence of
William Lower,
Charles Andrews

### Guaranty for the Purchase of a Horse

Omaha, Neliraska, January 2, 1911.

In consideration of One Hundred and Twenty-five Dollars for a black mare, I hereby guarantee her to be only five years old, sound, free from vice, and easy to ride or drive.

Chas. Howkand.

[N. B.—In this guaranty the seller will be he'd for all the defects in the animal at the time of sale. This is the safest way for one who is not an experienced judge of horses to purchase one.]

### Guaranty for a Debt Not Yet Incurred

Rochester, N. Y., March 10, 1911

Messrs. Sanford & Barth, Buffalo.

Gentlemen: The bearer of this, Mr. R. J. Walker, of this city, is on the point of visiting your city for the purpose of buying goods, and desires articles in your line. He is considered worth some thirty thousand dollars, and such is our confidence in his ability and integrity, that we hereby guarantee the payment of any bills which he may make with you during this year, to an amount not exceeding five thousand dollars.

Yours respectfully.

WILLIAMS & RYAN.

## Guaranty of a Debt Already Incurred

Reading, Pa., June 9, 1911.

THE PITTSBURG MANUFACTURING Co., Pittsburg.

GENTLEMEN: In consideration of One Dollar, paid by yourselves, the receipt of which is hereby acknowledged, I guarantee that the debt of three hundred dollars, now owing to you by Henry Wilcox, shall be paid at maturity.

Yours truly.

CHAS. SUNDERLAND.

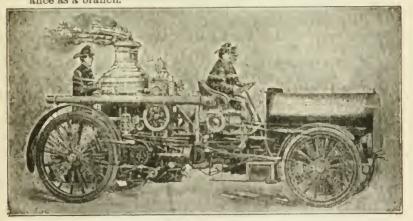
## INSURANCE

Definitions.—Terms Employed.—Insurance is a contract by which one of the parties, called the *insurer*, binds himself to the other, called the *insured*, to pay him a sum of money or otherwise indemnify him in case of the happening of a fortuitous event, provided for in a general or special manner in the contract, in consideration of a certain sum of money called a premium, which the latter pays or binds himself to pay him.

The Instrument of writing by which the contract is made is called a policy, the events or causes to be insured against risks or perils, and the thing insured the subject-matter or insurable

interest.

Kinds of Insurance.—Insurance is divided generally into three kinds: fire, marine, and life—the last including accident insurance as a branch.



## MODERN MOTOR PROPELLED FIRE ENGINE FIRE INSURANCE

Fire Insurance includes all undertakings to indemnify the insured against losses by fire, whether upon buildings, ships, or the goods and stock contained therein, or live stock.

What Property may be Insured.—Every kind of property may become the subject of insurance, unless, from motives of public policy, it has been prohibited by law. Insurances are most commonly made on buildings, goods, merchandise, freight, bottomry, loans, profits and commissions.

Who may Insure.—A person in order to secure a valid policy must have an interest in the property insured. It is not neces-

sary, however, that a person should be the owner of the whole or a part of the property in order to enable him to effect an insurance thereon. It is sufficient if he is directly interested in its safety. A person, therefore, has an insurable interest in any property when he is so circumstanced with respect to it, that its loss will be prejudicial to him.

Increasing Risk.—The amount of premium is based upon the degree of danger there is of fire. The insured must, therefore, not increase the risk; if he does the policy becomes void. No change should be made without notifying the insurance company and obtaining its consent.

Changes made after the policy is issued, for which the insured is not responsible, will not affect the contract.

Conditions in the Policy.—All policies contain certain additional agreements, such as: that no gunpowder or gasolene shall be kept on the premises insured; that they shall not become vacant, or that if any other insurance is added the company be notified.

Misrepresentations on the part of the owner as to the character of the property or the danger to which it may be exposed make the policy void.

Negligence.—A fire caused by negligence does not exempt the company from paying the loss, unless the negligence is so great as to be criminal or to indicate fraud.

Proof of Loss.—In order to recover amount of insurance the insured, after the loss of property by fire, must prove the quantity and value of the goods so lost, and also the injury sustained on goods not burned by reason of water used in attempting to extinguish the fire, and must make such affidavits and produce such certificates as the terms of the policy require, and cause the same to be filed in the office of the company within the time specified in the policy of insurance.

Amount Paid.—The amount to be paid in fire insurance is the amount of the loss, unless the loss exceeds the amount of the policy. The company never pays more than the policy. Thus if the policy is for \$3,000 and the loss is \$300, it pays \$300 and the policy becomes \$2,700. If the policy is \$5,000 and the loss \$6,000, the company pays only the \$5,000 and the policy is discharged.

Valuation is sometimes made in policies upon chattels of uncertain value, as books, plate, or works of art, and if a loss happens the insured is entitled only to actual indemnity.

Rebuilding.—Insurers against fire usually stipulate that they may rebuild or repair the premises insured, if they prefer, and they frequently avail themselves of the right.

Transfer of Policy.—A policy of insurance is not negotiable; yet if it is transferred for value in good faith, the transfer may be so far valid as to give the assignee a right to sue, subject to any equitable defenses which could be made against the insured.

The insurance policy does not go with the property when sold, but must be conveyed separately with the consent of the company.

## Fire Insurance Policy-The Main Clause

No. 420,745. \$5,000.

The Hartford Fire Insurance Company, of Hartford,

In consideration of forty dollars, do insure Chas. A. Barrows against loss or damage by fire to the mount of five thousand dollars as follows:

On certain books, engravings, steel and copper plates, and other merchandise now contained in the building at No. 425 Lincoln Street, Boston.

And the said company hereby agree to make good unto the assured, his executors, administrators, and assigns, all such immediate loss or damage (not exceeding in amount the sum insured) as shall happen by fire to the property above specified from the 15th day of January, 1911, at noon, to the 15th day of January, 1912, at noon, the amount of such loss and damage to be proven and paid, or made good according to the following terms and conditions:

(Here follow ordinarily a large number of additional clauses.)

In witness whereof we have caused this policy to be attested by the president and secretary of the company the 10th day of January, 1911.

WM. R. STANFORD, Secretary. WALTER E. CLARKE, Presid nt.

(SEAL)

## Renewal of Fire Insurance

Hartford, Conn., January 15, 1912.

The Hartford Insurance Company,

Do insure Chas. A. Barrows, in consideration of forty dollars, being the premium on five thousand dollars; this being a renewal of policy No. 420,745, which is hereby continued in force for one year, to wit, from January 15.

1912, to January 15, 1913, at noon.

WILLIAM R. STANFORD, Secretary. WALTER E. CLARKE, President.

(SEAL)

## Assignment of Policy

Know all Men by These Presents, That I, the within named Chas. A Barrows, for and in consideration of the sum of Fifty Dollars, to me paid by Charles Dana, of Boston (the receipt whereof is hereby acknowledged), have granted, sold, assigned, transferred, and set over, and by these presents I do absolutely grant, sell, assign, transfer, and set over to him, the said Charles Dana, all my right, property, interest, claim, and demand in and

to the within policy of insurance, which have already arisen, or which may hereafter arise thereon, with full power to use my name so far as may be necessary to enable him fully to avail himself of the interest herein assigned, or hereby intended to be assigned. The conveyance herein made, and the powers hereby given, are for myself and my legal representatives to said Charles Dana and his legal representatives.

In testimony whereof, I have hereunto set my hand and seal, this tenth

day of May, A. D. 1912.

CHARLES A. BARROWS. [SEAL]

Executed and delivered in the presence of William Spencer.

#### MARINE INSURANCE

Marine Insurance is a contract to pay the owner of a ship and its cargo certain portions of his loss, if it is damaged or destroyed while at sea.

The Premium is often paid by a series of notes called *premium* notes. The policy is valid whether the notes are paid or not.

The Amount of the policy may be any fixed sum, namely, the loss the company shall be responsible for. The amount to be paid is that proportion of the loss which the amount of the policy bears to the value of the property. Hence the company does not pay the whole of the loss unless the policy equals the value of the property.

If property is insured to only half its value the company pays only one-half the loss.

If policies have been obtained in several companies each company pays its proportion of the loss in the same proportion as though it were the only company. Whether there are one or many policies the amount to be paid by any one company is found by the following proportion: As the value of the property is to the amount of its policy, so is the amount of the loss to the share it must pay.

A Time Policy is one 'framed to cover possible loss within a specified time. This may be a year or certain months of a year. Other policies cover only the risk in a certain voyage.

When the insurance is for a certain voyage, the place of sailing and that which is to be the termination of the voyage must be specified, and the voyage must be by the ordinary course from the one port to the other unless deviation is allowed by the terms of the policy. If the vessel does not enter upon the contemplated voyage the premium need not be paid, and if paid must be returned.

Risk Assumed .- The risk provided against is not only that of fire, but also the other extraordinary perils attending a sea voyage, such as the perils of the sea, piracy, general average and salvage. General average is the loss of goods occasioned by throwing overboard a part of the cargo in order to save the vessel during a storm Salvage is a compensation seamen obtain for saving property they find abandoned at sea.

Ownership.—Since goods are often sold after being insured, the consent of the company should be secured to make the insurance valid. This may be obviated by making the policy "for the benefit of whom it may concern at the time of the loss." Then the policy remains in force no matter who owns the

goods.

Valued Policy .- The place for the valuation of the property is sometimes left blank. In that case the value must be determined at the time of the loss. But often the value is inserted; then that value is controlling for both parties. It is then called a valued policy. If in the policy the goods are valued at \$500 and the loss is \$250, the company pays only \$250. If the loss had been \$500 the company would have paid the whole loss. A full insurance is when value of property and value of policy are equal.

Seaworthiness .- It is taken for granted that a vessel to be insured is seaworthy. The person insured, not the company, must take the risk. If the vessel proves to be not seaworthy the insurance is void, though both the insured and insurers were not

aware of it.

Lost or Not Lost .- These words in a policy have reference to the insurance of property on sea when neither the owner nor the company know whether it is already lost or not. The com pany take the risk, also, and will pay the loss at the time the contract is made.

Abandonment.-If property is wholly lost the company pays the whole amount of its policy. If the partial loss be less than half the value of the property the company pays its due proportion of the loss. But if the loss is partial, but amounts to more than half the property in value, its owner has the right to give up to the company what remains, and claim the full amount of the policy. This is called the right of abandonment. If the words "without right of abandonment" are in the policy the company can refuse to take the property.

#### LIFE INSURANCE

Life Insurance is a contract to pay a certain sum of money on the death of a certain person or when he reaches a certain age.

A Whole-life Policy is an agreement to pay a certain sum to the representatives of the insured mentioned therein on his death.

An Endowment Policy is an agreement to pay a certain sum to the insured at the end of a fixed term, or to his representatives on his death, should that happen before the end of the term.

Principles Governing.—Life insurance is governed by the same legal principles, so far as they are applicable, as other kinds of insurance. Any fraud or deceit in obtaining a policy, or misrepresentation of essential facts, will render it void.

Insurable Interest.—Any person can insure the life of another upon whom he or she is dependent for support, or in the continuance of whose life he or she has an adequate pecuniary interest, and a wife is always held to have an insurable interest in the life of her husband.

The consent of the person whose life is insured must be obtained to a policy issued in favor of a third party.

If there is no insurable interest the contract is void, as being a wager policy.

Restrictions are usually imposed by the company, such as to travel only within certain limits, or not to engage in hazardous employments. In such cases, if the insured desires to overstep the restrictions, permission must be obtained from the company.

Assigning Policy.—Life insurance policies are assignable. The policy itself usually specifies the way in which the transfer must be made.

## Indorsed Assignment

I, the undersigned Chas. N. Milton, insured by the within policy issued by the Occident Life Insurance Company, in consideration of one dollar to me in hand paid by Clarence Dorr, and for other good and sufficient consideration, do hereby assign and transfer to the said Clarence Dorr, the said within policy, together with all the right, title, interest, and claim which I now have or hereafter may have, in, to, or under the same.

Witness my hand and seal this first day of October, A. D. 1911,
Chas. N. Milton. [SEAL]

Executed in the presence of Edward Everett.

Mortality Table. Following is the table recognized by insurance companies in the United States showing the expectation of life of persons from birth to ninety-five years. It is used in ascertaining the value of life estates. It is accepted by courts as evidence in fixing such value. It is used also in ascertaining the pecuniary loss in case of death by negligence.

## EXPECTATION OF LIFE.

Age	Expectation in years	Age	Expectation in years	Age	Expec- tation in years	Age	Expectation in years	Age	Expectation in years
0 1 2 8 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	29.17 37.78 39.82 45.04 45.78 45.96 46.10 50.00 49.00 47.25 46.50 45.75 45.75 45.75 46.50 47.25 46.50 47.25 48.50 49.00 47.25 48.50 49.00 40.00	20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38	41.50 40.75 40.05 40.05 39.50 38.75 38.00 37.25 36.50 35.75 29.35 34.25 33.75 33.75 33.00 31.75 31.00 30.50 29.75 29.00 28.25	40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58	27.75 27.00 26.50 25.75 25.25 24.50 24.00 23.25 22.50 22.00 21.25 20.61 20.05 19.49 18.92 17.78 17.20 16.63 16.04	60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78	15.45 14.86 14.26 13.05 13.05 12.43 11.96 11.48 11.01 10.50 9.60 9.14 8.69 8.25 7.83 7.40 6.99 6.59 6.21	80 81 82 83 84 85 86 87 89 90 51 93 94 95	5.85 5.60 5.16 4.87 4.66 4.67 4.21 3.90 3.56 3.43 3.32 2.40 1.98 1.62

## ACCIDENT AND CASUALTY INSURANCE

Accident and Casualty insurance provides indemnity, not only against loss or injury from personal accident, but also against loss from various fortuitous happenings.

Accident Insurance, as applied to the death or injury of persons, usually provides for a stipulated sum to be paid on the death by accident of the insured and a specific indemnity for the loss of one or both eyes, one or both hands, or one or both feet, while by the addition of about one-fifth to the ordinary premium rate double indemnity is promised for death or disabling injury while riding upon railways and other public conveyances. Some companies stipulate to pay, besides the usual indemnity in case of accidental death, a weekly benefit for a partially disabling accident.

Casualty Insurance covers losses by fortuitous happenings in many kinds of business. There are companies which insure against elevator accidents, breakage of plate glass, loss through dishonest employees, liability of employers for accidents to those in their employ, accidents to steam boilers, etc.

## LANDLORD AND TENANT

#### LEASES

Leases are contracts by which one party, called the *lessor* or landlord, gives to a second party, called the *lessee* or tenant, possession of land or other real estate for a fixed period of time, receiving in return for the use, possession and profit thereof a fixed compensation called the *rent*.

Duration.—A lease may be for life, by sufferance, or for a term of years.

A Lease for Life terminates with the death of the lessee or tenant or any person specified as such in the lease.

A Lease by Sufferance of the landlord exists when a lease for a term of years has expired and the tenant is allowed to remain in possession. Such possession may be terminated without notice.

A Lease at Will is one which exists only during the will of the landlord and may terminate at the will of either party, as the rights of possession on the part of the landlord or the rights of abandonment on the part of the tenant may justify, or by the death of either party.

A Lease for a Term of Years begins and ends at a certain specified date. Under the latter the tenant possesses greater privileges than under either of the former. When the number of years is not mentioned it is construed to mean not less than two.

Written or Unwritten.—Leases for a term of more than one year, in most of the States, must be in writing, and in some States must be executed, acknowledged and recorded in the same manner as deeds, otherwise they are invalid as against third parties without notice.

Essential Specifications in a written lease are: dates, names, rent, description.

The Date fixes the beginning of the lease. Where no date is mentioned the time commences ordinarily with the delivery of the lease. This, however, is not always conclusive if another date can be proven.

Names.—The law recognizes only one Christian name and the surname. If a party assumes a false name he is nevertheless responsible. The landlord deals with the man, not with the name.

The Rent.—Rents may be payable in other valuables besides money; the amount should, however, always be stated. If not

stated, the law will allow the landlord what the use of the premises is reasonably worth.

Description of Premises.—The lease must describe the premises. It need not be in full detail; any general description that will identify the property is sufficient. The parts and appurtenances that ordinarily belong to such premises are included.

Who Cannot Give a Lease.—A husband cannot make a lease which will bind his wife's property after his death. A guardian cannot give a lease extending beyond a minor's majority which the minor cannot annul if he wishes, but if he does not annul it the tenant is bound by it. Under the common law a married woman cannot lease her property, but under the statutes of most States she can. A special statute supersedes the common law.

A minor cannot make a valid lease, but can become a tenant. Students under age hiring rooms come under this class.

## Rights of Landlord

Subletting and Assigning Lease.—The landlord can prohibit his tenant from subletting the premises, or any part of them, or from assigning the lease, by stating the prohibition in a special clause of the same.

Tenant Breaking the Condition.—If the tenant has broken the condition of the lease by subletting the premises, the landlord, if he accepts the rent due, cannot remove the tenant.

Right to Inspect Premises —The landlord has the right to enter upon the premises to ascertain whether there is any waste or injury done, after first giving notice of his intention.

Making Repairs.—Unless expressly covenanted, the landlord is not obliged to make the necessary repairs. If a tenant wishes his landlord to make special repairs during the term he must stipulate for the same in the lease. But if the landlord does agree to make all necessary repairs and fails to do so, even that does not relieve the tenant from paying rent.

Notice to Quit.—In case of a tenant at will, or one who holds over after the expiration of his lease with the consent of the landlord, a notice to quit is necessary to compel him to give up his possession. This notice must, as a general rule, be given at a date before some "rent day," and distant from it by the usual period at which rent is payable. Thus, if it is payable monthly, there should be a month's notice ending on the day when the rent is payable. If the rent is in arrears, only a brief notice is

required. In most of the States this is fixed at from five to fourteen days. Such notice need not be made to end upon the day when rent is payable.

Refusal to Vacate.—If a tenant refuses to vacate the premises after the termination of his lease, from any cause, the proper and safest way for the landlord, as well as the cheapest, is to get him out by process of law, or by a sealed lease to a third party, who can legally claim possession.

#### Rights of Tenant

Some of the rights of tenants are embodied in the above statements of the rights of the landlord.

To What a Tenant is Entitled.—In taking possession of the premises the tenant is entitled to all the privileges and appurtenances to the property in all their details without being expressed in the lease.

Sale of Property.—The landlord has no right to interfere with the tenant's rights by selling the property. Such sale must be made subject to the rights of the tenant.

The Right to Sublet.—A tenant can sublet the rented premises or any part of them, unless expressly prohibited from doing so by the terms of the lease. He, however, remains responsible to his landlord, unless the latter accepts such third party as his tenant in place of the former and releases him in writing.

Lease Assignable.—A tenant's lease is always assignable unless it contains restrictions to the contrary. Such an assignment, however, to be fully legal must be under seal. The assignment may be for a part or the whole of the original term, but if for less than the original term, then it is properly subletting.

The Subtenant.—The subtenant bears no relation to the original landlord and is not responsible to him for rent. The tenant from whom he has rented is his only landlord. In the case of an assignment of the lease the new tenant becomes the tenant of the original landlord and must pay him the rent.

Repairs.—A tenant cannot make repairs upon the property rented and deduct the amount paid out from the rent, for that would be in effect compelling the landlord to do it.

Making Improvements.—For improvements that become part of the premises, or such as cannot be removed without injury to the same, the tenant can claim no allowance from the landlord but a tenant may remove from rented property articles which he has placed for use in some trade, such as steam engines or

other machines, or even buildings erected for the same purpose, or articles for domestic use, such as furnaces, shelves, gas fixtures, etc. Of course his personal property a tenant can remove

any time at pleasure.

Right to Quit.—Where the renting is for a definite time no notice from either party to the other is necessary, as the land-lord has the immediate right of possession as soon as the time expires, so the tenant has also the right to vacate at that time without giving notice to the landlord. Where, however, no limit of time is set a notice from either party is required of six months' time or less.

Payment of Taxes. - Where the tenant is to pay the taxes on the property he occupies it must be distinctly stated in the

lease, as a verbal promise is of no effect.

A Recorded Lease.—If a lease for three or more years is acknowledged and recorded in the recorder's office, then the leased property cannot be secretly or fraudulently conveyed during that time.

Effects of Mortgage.—If after renting the landlord should mortgage the property, the mortgagee's rights would be subject to those of the tenant, and a sale or foreclosure could not disturb

the tenant's possession.

## Duties of the Landlord

1. It is the landlord's duty to see to it that his tenant has the quiet enjoyment of the premises and is not disturbed by any one having a better title to the same than the landlord.

2. The landlord must not render the tenant's occupation uncomfortable by erecting anything like a nuisance on or near

the premises.

3. If not otherwise provided for in the lease, it is the landlord's duty to pay the taxes, ground rent, or interest on a mortgage that may exist.

4. The landlord is not bound to make repairs or allow the tenant for repairs which he may make unless especially agreed for in advance and so stated in the lease.

## Duties of the Tenant

1. The tenant must take such care of the premises that others may not be injured by any neglect of any part of it.

2. The chief duty of the tenant is to pay rent. If no time for his possession is fixed, then he is only obliged to pay for the time

he has occupied; but if under any agreement for a certain term he will have to pay for that term.

- He is expected to keep the premises wind and water tight and repair all damages made or suffered by him. Natural wear and tear he need not make good.
- 4. The tenant is obliged to return the premises to his landlord at the end of his term undiminished in value by any willful or negligent act of his. This requires him to replace broken doors or windows, or such other articles as may have been broken by use, neglect or accident.

## Lease for Renting a Louse-Short Form

This instrument, made the first day of April, 1911, witnesseth, that I nave this day let and rented unto Charles Waters my house and premises, No. 430 Lincoln Ave., in the City of Aurera and State of Illinois, with the sole and uninterrupted use and occupation thereof for one year, to commence the first day of May next, at the monthly rental of twenty-five dollars, payable in advance.

Witness my hand and seal.

JACON BINDER. [SEAL]

## Lease for Renting a House-Long Form

This Indenture, made the 20th day of May, 1911, between William B. Clark, of Chicago, State of Illinois, of the first part, and James L. Holmes, of the same place, of the second part.

Wilnesseth, That the party of the first part has hereby let and rented to the party of the second part, and the party of the second part has hereby hired and taken from the party of the first part, the ground floor, cellar, and second story of the premises known as 4244 Indiana Ave., in the City of Chicago, with the appurtenances, for the term of three years, to commence the first day of June, 1911 at the yearly rental of nine hundred dollars (\$900), payable in equal quarterly payments on the usual quarter days in each year.

And it is agreed that if any rent shall be due and unpaid, or if default shall be made in any of the covenants herein named, then it shall be lawful for the said party of the first part to re-enter the said premises and to remove all persons therefrom.

And the said party of the second part covenants to pay to the said party of the first part the said rent as herein specified and that at the expiration of the said term the said party of the second part will quit and surrender the premises in as good state and condition as reasonable use and wear thereof wilt permit, damages by the elements excepted; and the said party of the first part covenants that the said party of the second part on paying the said yearly rent and performing the covenants aforesaid shall and may peaceably and quietly have, hold, and enjoy the said demised premises for the term aforesaid.

In witness whereof the parties hereto have hereunto interchangeably act their hands.

WILLIAM B. CLARK, JAMES L. HOLMES.

## Landlord's Agreement

This certifies that I have let and rented, this first day of June, 1911, unto Chas. Burrows my house and lot, No. 450 Taylor Street, in the City or St. Louis State of Missouri, and its appurtenances: he to have the free and uninterrupted occupation thereof for one year from this date at the yearly rental of five hundred dollars, to be paid monthly in advance, rent to cease if destroyed by fire or otherwise made untenantable.

HENRY BRANDON.

## Tenant's Agreement

This certifies that I have hired and taken from Henry Brandon his house and lot, No. 450 Taylor St., in the City of St. Louis, State of Missouri, with appurtenances thereto belonging for one year, to commence this day, at a yearly rental of five hundred dollars, to be paid monthly in advance unless said house becomes untenantable from fire or other causes, in which case rent ceases, and I further agree to give and yield said premises one year from this first day of June, 1911, in as good condition as now, ordinary wear and damage by the elements excepted.

Given under my hand this day, etc.

CHAS. BURROWS.

## Landlord's Notice to Quit

To CHAS. BURROWS.

Sir. Please observe that the term of one year for which the house and land situated at No. 450 Faylor St., and now occupied by yourself, were rested to you expired on the first day of June, 1911, and as I desire to repossess said premises you are hereby requested and required to vacate the same.

Respectfully yours,

HENRY BRANDON.

St. Louis, Mo., June 10, 1912.

## Tenant's Notice of Leaving

TO HENRY BRANDON.

Sir. The premises I now occupy as your tenant at No. 450 Taylor St. I shall vacate on the first day of July, 1912, you will please take notice accordingly.

Yours truly.

CHAS. BURROWS.

St. Louis, Mo., June, 10, 1912.

## FARM LEASES

While the foregoing laws are of general application to landlords and tenants, some additional features pertaining to farm tenses demand special attention.

General Duties of Farm Tenants.—A tenant of a farm is bound without a special clause in the lease to cultivate the land, and generally so to manage all the affairs of the farm as good husbandry requires, and as is the custom in the vicinity.

Crops.—As a general rule when no time is specified at which the tenancy shall cease, the tenant is entitled to the so-called "away-going crops," or crops of the present season, but when the time is fixed and certain the tenant is not entitled to such crops, because he knew when he sowed that he took the risk of getting his crops off before the termination of his term. It is also held that the tenant leaving is entitled only to the annual productions of the soil raised by his own labor, which does not include the permanent and natural products of the earth, such as trees, fruits of the orchard, natural grasses and the like. Local usages of the country are, however, largely taken into consideration here, and special statutes of the States may vary greatly in this respect.

Manure.—It is a general law that manure upon a leased farm cannot be removed by the outgoing tenant.

Fixtures.—The question as to what constitute fixtures on a farm is a broad one, and we can only say that respecting this the rules are liberal in favor of the tenant. It is stated in a general way that a tenant may sever and remove at any time all such fixtures of a chattel nature as he has himself erected or placed upon the rented premises for the purpose of ornament, domestic convenience, or to carry on a certain trade; such may be steam engines or other stationary machinery and buildings erected by him, for such machinery.

Taxes.—The tenant in possession is generally considered as liable for the taxes, but without special agreement he is under no jobligations to his landlord to pay the taxes, and if he does pay them so as to protect himself in the possession and free enjoyment of the premises he can deduct the amount from the rent and hold his landlord for any excess above the rent due him.

Good Advice.—No class of litigation is more intricate and technical than that of landlord and tenant. It should there-

fore be avoided if possible. In order to do so have your lease carefully executed, specifying as far as possible all details of conditions, and then observe them carefully. If, however, any one, be he landlord or tenant, anticipates difficulty, then we advise him to secure the services of a competent lawyer to help him if possible to avert the litigation or to conduct it for him.

"Law and justice are two things which God has joined but man has put asunder."

#### Lease of a Farm

This Indenture, made this first day of March, 1911, between Chas. Ortland, of the township of Lisle, County of Dupage, and State of Illinois, of the first part, and John Burgess, of the said township and county, of the second part,

Widnessett. That the said Chas, Ortland, for and in consideration of the yearly rents and covenants hereinafter mentioned and reserved on the part and behalf of the said Chas. Ortland, his heirs, executors, and administrators to be paid, kept, and performed, hath demised, set, and to farm let, and by these presents doth demise, set and to farm let unto the said John Burgess, his heirs and assigns, all that certain piece, parcel, or tract of land situated, lying, and being in the township of Lisle afore, aid, known as lot No. [description of farm here], now in the possession of John Hartman, containing three hundred acres, together with all buildings and improvements, to have and to hold the same unto the said John Burgess, his heirs, executors, and assigns, from the first day of May next, for and during the term of five years next ensuing and fully to be complete and ended, yielding and paying for the same unto the said Chas. Ortland, his he rs and assigns, the yearly rent or sum of One Thousand Dollars on the first day of May in each and every year during the term aforesaid, and at the expiration of said term or sooner if determined upon, he the said John Burgess, his herrs or assigns, shall and will quietly and peacefully surrender and yield up said premises with the appurtenances unto the said Chas. Ortland, his heirs and assigns, in as good order and repair as the same are now, reasonable wear tear, and casualties which may happen by fire or otherwise only excepted.

In witness whereof we have hereto set our hands and seals.

CHAS. ORTLAND, [SEAL]
JOHN BURGESS. [SEAL]

Signed, sealed, and delivered in presence of William Klink.

#### A Lease of Real Estate

This Indenture, made this third day of January, A. D. 1911, between William Caxton of the Town of Centralia, in the County of Marion and State of linois, of the first part, and Chas. Riley of the Town of Salem, in the county and State aforesald, of the second part. Witnesseth, that the said William Caxton, for the consideration hereinafter named, hath demised, granted, and leased and doth by these presents here by demise, grant, and lease unto the said Chas. Riley and his assigns Lots five (5) and six (6) in Block eight (8) of the original Town of Centralia, as shown by the plat of said town. Also the southeast quarter (S. E. ‡) of Section six (6), in Township ten (10),

Range seven (7), west of fourth Principal Meridian, and containing eighty (80) acres, according to government survey, together with all the privileges and appurtenances belonging thereto, to have and to hold the above described premises for and during the time of three years from the date hereof.

And the said Chas. Ruley doth covenant and agree to pay the said William Caxton or his assigns the sum of Nine Hundred Dollars as yearly rant for said premises, in three equal payments of Three Hundred Dollars each, at the expiration of every four months from date, during the continuance of this lease.

In witness whereof the said parties have to this and one other instrument of the same tenor and date interchangeably set their hands and seals the day and year first above written.

WILLIAM CAXTON, [SEAL] CHAS. RILEY. [SEAL]

Signed, scaled, and delivered ) in presence of John Weidmann.

## LICENSE

License is a special permission granted by a competent authority to a person or persons to carry on a certain trade or business, or to do certain acts, at a certain place, within a certain district, city, town, or village, on the payment of a special tax or premium for such privileges.

The trades, vocations and professions for which licenses are granted are of great variety. They are regulated by statutes and ordinances of city governments, which provide restrictions and fix penalties for violating the conditions of the license by misrepresentation or other fraudulent practice.

A license is liable to be recalled or canceled by the authorities who have issued the same, either in accordance with a fixed date or because of some violation by the licensed person.

Canvassers and Drummers are held not to be liable to payment of a peddler's license where they simply take orders from samples of goods or prospectuses of books, etc. But where they have the goods ready for delivery they come within the definition of peddlers and must obtain a license.

Government License to sell liquor, etc., strictly speaking, is not a license, but simply a receipt for special tax. It does not authorize the sale of liquors, etc., in violation of State laws or municipal regulations.

A license may be legally granted in mere words without writing, but in such cases the presence of a competent witness is required to substantiate the same.

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The following forms may serve as general models and prove of rervice to some interested party.

## License from the Government to Retail Liquors

\$20.00. Series of 1911. No. 307,850. United States stamp for special tax. Internal Revenue.

Received from William R. Howard the sum of Twenty Dollars for special tax on the business of retail liquor dealer, to be carried on at Cleveland, State of Ohlo for the periods represented by the coupon or coupons hereto stached.

: U. S. REV. SEAL.

Dated at Cleveland. Ohio, June 10, 1911.

CHAS. R. MORTEN, Collector 1st Dist., State of Ohio.

Severe penalties are imposed for neglect or refusal to place and keep this stamp conspicuously in your establishment or place of business.

## Form of Peddler's License

By authority of the City of Chicago, permission is hereby given to Wm. O'Brien to peddle green fruit, numbered 450, from the date hereof until the first day of April next in said city, subject to the ordinances of said city in such cases made and provided and to revocation by the Mayor at any time at his discretion.

: Witness the hand of the Mayor of said city and : CITY SEAL : the corporate seal thereof, this lifteenth day of April, 1911.

CARTER H. HARRISON, Mayor.

Attest. --- City Clerk.

On the back of the license is printed the following:

LICENSE 450.

To Peddlers: Your attention is directed to the following section from the ordinance relating to peddlers.

Section 5. Any person who shall exercise the vocation of peddler by means of a wagon, cart, or other vehicle shall cause his name, together with the number of his license, to be painted on the outside of his vehicle, the letters and figures not less than one inch in length.

Any violation of this section shall subject the offender to a fine of not less than Five Dollars and not more than Fifty Dollars.

## LIENS

A Lien is a hold upon or right to property to secure the payment of a debt or the discharge of an obligation; more specifically, it is a right in one person to retain that which is in his possession belonging to another, till certain demands of the person in possession are satisfied.

A Lien by Force of Common Law consists in a mere right to retain possession of the property until the debt or charge is paid.

A Particular Lien holds the property of another because of labor bestowed upon it or money expended for it

A General Lien includes a particular lien and consists in a right to retain the property of another because of a general balance due from the owner.

Parties Having a Particular Lien without Special Statute.— Every Mechanic has a particular lien on any article on which he has expended labor and money.

Carriers also have a lien on all goods consigned them for special services rendered.

Lawyers have a lien on all the papers in a case for their pay.

Pawnbrokers have a right of lien in case where the person
pawning the goods has authority to pledge, but not otherwise.

All Venders have a lien on goods for their pay as long as they are not delivered, but not after that.

Commission Merchants and Brokers have a general lien on goods for commission due.

Hotel Keepers have a lien upon the baggage of their guests for accommodation charges.

Liens by Express Agreement,—This occurs when goods are placed into the hands of a person for some special purpose with an express contract that the goods shall be a pledge for the labor or expense incurred or where property is delivered to another with the express understanding that it is security for a loan made on the credit of it.

Other Important Liens are: the lien upon the land of a debtor created in favor of his creditor by the judgment or other process of a court; the equitable lien of a seller of real estate for the unpaid balance of the purchase price, which is recognized only in some of the States; and the statutory lien of mechanics on the houses and ships which they build or repair.

Special Statutes.—In many States liens are given by special statutes to boarding-house keepers, livery men and others.

Requisites of a Lien.—The essential requisite of a personal property lien consists in the lawful delivery of the property to the party claiming the lien or to his authorized agent. Whenever possession is voluntarily given up the lien is lost.

Rights of Creditor.—A creditor can by lien retain possession of goods even against the assignee of debtor, provided they have been placed honestly into his hands.

Enforcement of Liens.—A person holding a lien under the common law has in general not the power to sell the property.

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it is only a right to force payment by holding the property and thereby depriving the owner from the use of it until he renders justice where it is due. Where property is held as security for a loan the lender may sell, but he must give due notice of the time and manner of sale so as to give the owner of the property all possible chance to redeem or to waive rights. Many States have special statutes for the enforcement of liens and it is safest to consult these where enforcement becomes necessary.

#### MECHANICS' LIENS

Liens created by statutes, although based upon the principles of common law are designed to go further, namely: to give liens even where the possession is not with the consent of the owner or where exclusive possession is impossible.

Mechanics' liens are exclusively created by statutes; and no matter how just the claim may seem the lien will not exist unless the party brings himself under the provisions of the statute.

The statute is based upon the principle that the party who has increased the value of the property by his labor or material furnished should have security upon the property although changed in form.

Mechanics are here assured of their right to a lien upon the property for their labor and material furnished, but as to details concerning the conditions of the lien and the manner of enforcing it they will do well to consult the statutes of their particular State.

Before bringing action to enforce such a lien, notice must be given in writing by the holder of the lien to the owner of the property, and in order to guard against fraud to third parties, the certificate of the claim must be filed with the county clerk or other officer as provided by the statute. The following form may be used:

#### Notice of Mechanic's Lien

CLERK OF THE COOK COUNTY COURT,

Chicago, III.

Sir: Please take notice, that I, Frank Greene, residing at 4550 Wentworth Ave., in the City of Chicago, County of Cook, have a claim against Charles Hudson, owner (or only contractor, as the case may be) of a new four-story brick dwelling house, amounting to Fifteen Hundred and Forty Dollars and Fifty Cents, now due to me, and that the claim is made for and on account of material furnished and labor done, and that such work was

done and materials furnished in pursuance of a contract entered into the 15th day of April, 1911. (here describe the contract.) between the undersigned and the said Chas. Hudson. The said building is situated on Lot—, in Block——, in Stone's addition to the City of Chicago, on the east side of Halsted Street, and is known as No. 3242 of said street. The following is a diagram of said premises.

(Insert diagram.)

And that I have and claim a lien upon said building and the appurtenances and lot on which said building stands, subject to the provisions of an Act of the Legislature of the State of Illinois entitled "An Act to Secure the Payment of Mechanics, Laborers, and Persons Furnishing Material Toward the Erection, Altering, or Repairing of Buildings in the City of Chicago," passed ————, and of the acts amending the same.

Dated this 15th day of October, 1911.

FRANK GREENE.

Frank Greene, being duly sworn, says that he is the claimant mentioned in the foregoing notice of lien; that he has read the said notice and knows the contents; and that the same is true to his own knowledge, except as to those matters stated on information and belief, as to those matters he believes to be true.

FRANK GREENE.

Sworn before me this 15th day of October, A. D. 1911.

GEORGE FERGUSON,

Police Justice.

## MAIL ORDER BUSINESS

Origin.—The mail order business is an evolution of the department store, or the concentration under one management of the sale of every imaginable article for which a customer can be found. It is simply the department store universalized by means of the postoffice establishment.

The Postal Service of the United States is the greatest business concern in the world. It is estimated that it handles eight thousand pieces of mail matter a minute, and in the course of a year from four to five billion pieces, including letters, papers, books and parcels.

It was a master stroke to convert this great institution into a business agent for a commercial house, and a fortune was realized from it almost immediately. Men and women are still making fortunes through the operation of this great postal department store system.

The mail order mercantile business originated in Chicago, where it is now carried on the most extensively. In 1910 the mail order houses of that city did a total business of \$112,000,000

How to Engage in the Business.—One who has made a success

of it furnishes the following rules for the guidance of others who may wish to engage in the business:

First.—Go slowly. Don't decide to embark upon a mail order career and then resign your present position without knowing definitely in what direction you are going to work. A few months of quiet consideration and planning won't do any harm. There will be as many customers for you after that period as there are now.

Second.—Choose carefully a "leader" or article upon which you will base your main campaign and upon which you can get all the profit. To do this, unless you are already the possessor of an exclusive idea, run carefully over the entire list of what people wear, eat, drink, or need from the cradle to the grave. Nothing is too small or too large to be included in this vast catalogue, and your eventual choice will probably come in a flash of inspiration.

Third.—Having chosen your leader, investigate carefully the price at which you will be able to offer it to successfully compete with other similar articles. Be sure that you can sell it through the mails cheaply enough to meet competition.

Fourth.—Plan your advertising. Consultation with an expert is a safe precaution, as an advertising man possesses experience that will be valuable to you even if you are brilliant enough to successfully word your own advertisement.

Fifth.—As a general rule one-fifth of a small capital is not too much to expend in experimenting. When you begin to get results resign your position, devote your whole time to your new business, and develop it economically and judiciously upon the lines originally decided upon.

Sixth.—Do not be content with a single leader. Get from supply houses a number of specialties, and inclose circulars for them in all your letters. Any orders thus gained cost merely the two-cent stamp that carries the bait.

These are simple rules to write, but it takes business capacity to carry them out. The days of the "fake" mail business are over. Every now and then a swindle is brought to light, but the government is stern and relentless in ferreting out and suppressing such enterprises. It was the government that gave the mail order business its first great impetus by reducing the rate of postage, and it is the government that has doubled the total trade in the last few years by establishing the rural free delivery system. (For rates of postage on merchandise, etc, see Postal Information.)

## MERCANTILE AGENCIES

A Mercantile Agency is an establishment for supplying merchants, bankers, and all who do a more or less credit business, with information as to the financial standing of persons engaged in business.

How they Operate.—These agencies obtain from local correspondents in all parts of the country information as to the character and personal responsibility of individuals, firms, and corporations, and make such information readily available at all business centers.

Commercial Ratings.—From the information thus obtained is deduced what are known and recognized as "commercial ratings." The names of the various merchants, with the ratings, are issued quarterly, in book form, and are classified, first by states and provinces, then by cities and towns, all arranged in alphabetical order. These volumes, covering the United States and Canada, embrace a million and a quarter of distinctive business organizations, and yet so simply are they classified that a reference can be had with as much readiness as the finding of a subject in a cyclopedia.

Leading Agencies.—The Bradstreet and R. G. Dun & Co. concerns are the leading agencies for the United States and Canada. They have headquarters in New York, and sub-agencies in all principal cities. Agencies also exist in Europe, and importing and exporting houses on opposite sides of the globe are thus kept informed as to each other's commercial standing.

Benefit to Merchants.—This system enables the solvent merchant to purchase goods anywhere with reasonable certainty that they will be delivered promptly, avoiding undue delay consequent to investigating his credit. The agency thus serves as a sort of clearing-house for credit, and good ratings are much sought after in the business world.

Credit Books are also issued, furnishing the same sort of information to those selling to particular trades.



## MORTGAGES

A Mortgage is a conveyance of property, either real or personal, given to secure payment of a debt, or the performance of some special act. When the debt is paid the mortgage becomes void and of no value.

Names of Parties.—The person mortgaging his property is called the *mortgagor*, and the person to whom the mortgage is given the *mortgagee*.

#### REAL ESTATE MORTGAGES

In real estate mortgages, unless otherwise provided, the person giving the mortgage retains possession of the property, receives all the rents and other profits and pays all taxes and other expenses.

Must be in Writing.—All real estate mortgages must be in writing, signed and sealed. The time when the debt, to secure which the mortgage was given, is due must be plainly stated, and the property conveyed must be clearly described and located.

Must be Acknowledged.—A mortgage pledging real estate must be acknowledged like a deed, before a proper public officer, whose duty it is to record such instruments.

The Accompanying Bond or Note.—It is usual not only to insert a covenant of promise in the mortgage to pay the debt, but for the mortgager to give also his bond or note, as collateral to the personal security. In this case the mortgagee may sue and recover upon the note or bond, or he can foreclose his mortgage; and if there is not sufficient realized from the sale to pay the debt he may recover the balance on the bond or note.

The bond or note is drawn precisely like any other instrument of the kind. In the case of notes, it is customary to state therein that they are secured by a mortgage of even date.

Ownership.—Formerly the mortgagee was considered the legal owner of the property, but now he is regarded as having only a lien upon the property by way of security. The title still remains in the mortgagor.

Redemption.—By what is termed equity of redemption the mortgagor is given further time to redeem his property after the debt for which the mortgage is security falls due. Within this extended time he must pay the full amount of the mortgage with the interest prescribed by the statute.

The Equity of Redemption is such a positive right that it may be sold, and is of such a character that the law refuses to allow it to be foregone, even by an agreement to that effect in the mortgage.

Power of Sale.—A power of sale is not essential to a mortgage, but it may contain a clause permitting the sale of the property, if forfeited by nonpayment of debt, as required. A mortgage may be so drawn that the property can be sold without decree



THE MAN WHO NEVER PAYS HIS MORTGAGE

from the Court, according to the statutes of the State, or by agreement of the parties.

Mortgages are sometimes so drawn that a single failure in paying the interest at a stated time renders due the whole, both principal and interest, and gives the mortgagee authority to sell the property long before the debt is due.

Assignment.—A mortgage can be assigned, but unless the bond or note is also assigned it is worthless and gives no right to foreclose.

Making Payments.—If the wording in the mortgage or note is, "payable on or before" a certain date, the creditor cannot compel payment before that date (if the interest is kept up); but the debtor if so disposed can pay at any time and the creditor must accept it.

A debtor cannot compel his creditor to accept payment before it is due, because he has a right to have his money remain on interest according to agreement.

Whenever payment is made upon a note or bond or mortgage it should be carefully indorsed upon the instrument.

Tendering Payment.—If the full amount due on a mortgage is tendered to the creditor it stops the interest and releases the lien on the mortgage, but the debt remains. The creditor has after that only the individual responsibility of the debtor to secure his claim. This rule is applicable to mortgages on real



THE THRIFTY MAN WHO PAID HIS MORTGAGE AT MATURITY.

and personal property, as also to all liens for personal labor and chattels.

Foreclosure.—If the mortgager fails to meet the conditions of the mortgage then the mortgagee may foreclose. The method of foreclosure differs in the several states. In some the statutes prescribe a short, summary method; in others an action of court is necessary; in still others either method is legal.

## HOW TO FORECLOSE A MORTCAGE

The methods of foreclosing vary in different States, but the following general steps are common in all:

- Application to a Court of Chancery for authority to foreclose.
  - 2. Hearing the parties by the Court.

- 3. Referring the case to a Master in Chancery.
- 4. Advertising the property.
- 5. Selling it to the highest bidder at auction.
- 6. Deeding it to the purchaser.
- 7. Paying over any surplus fund remaining from the sale to the mortgager.

Since the interests involved in giving and taking a mortgage on real estate are of such great importance that a mistake in executing it or in complying with its conditions may subject the interested parties to much trouble and heavy losses, the mortgage, bond and note should be drawn up with the utmost care and the conditions laid down strictly and promptly complied with.

## Promissory Note Secured by Mortgage

\$3,000

N w Y r' March 15, 1 11.

One year after date I promise to pay to Robert II rte. Three The sand Dollars at the First National Bank of New York City, with inter- t at the rate of seven per cent per annum making such sale, on demand, to the party for value received.

This note is secured by a mortgage of even date herewith on certain real estate (describe the premises).

Signed.

JULIUS HAWTHORNE

## Real Estate Mortgage to Secure Payment of Above Note

This Indenture, made this 15th day of M rch, in the vertex thou and nine bundred and cleven, between Julius Hawthorne, of the City, County, and State of New York, and Margaret, his wife, parties of the first pertex of Robert Hartless, of the City of Chicago, County of Cook, and State of fill these, party of the second part,

Witnesseth. That the said party of the first part, for and in consideration of the sum of Three Thomsand Dollers, does grant, for an including unto the said party of the second part and to his result as transit, and convey unto the said party of the second part and to his result as transit, and complete description of the premises northy ged, together with all the providesments and appure nances thereto belonging or in any total paperty using

This conveyance is intended as a mortgage to secure the payment of the above note according to the condition of the sam, and these present that be void if such payment be made.

But in case default shall be made in the payment of the principal or interest as above provided, then the party of the second part, his executor, administrators, and assigns, are hereby empowered to sell the premies above described, with all and every of the appurtenances or any part thereof, in the manner prescribed by law, and out of the money arising from such sale to retain the said principal and interest, together with the costs and charges of making such sale, and the surplus if any there be shall be paid by the party making such sale, on demand, to the party of the first part, his heirs or assigns, etc.

In witness whereof said party of the first part hereunto set their hands and seals the day and year first above written.

JULIUS HAWTHORNE, [SEAL] MAROARET HAWTHORNE. [SEAL]

Signed, sealed, and delivered a lin presence of Walter May, Harvey Jones.

## Mortgage - Short Form

The Mortgagor, George E. Arnold and Charlotte Arnold, his wife, of the town of Wooster, in the County of Wayne and State of Ohio, Mortgage and Warrant to John Randolph, of the same place, to secure the payment of a certain promissory note for the sum of One Thousand Dollars, payable to the order of the said John Randolph in two years from the date thereof, with interest at the rate of six per cent per annum, payable semi-annually, the following described Real Estate: Lots number one (1), two (2), and three (3) in Block No. fifteen (15) of Carter's Addition to the Town of Wooster, in the County of Wayne and State of Ohio, hereby releasing and waiving all rights under and by virtue of the Homestead Exemption Laws of this State.

Dated this 4th day of May, A. D. 1911.

GEORGE E. ARNOLD, [SEAL] CHARLOTTE ARNOLD. [SEAL]

Signed, sealed, and delivered in presence of ARTHUR B. LOWE.
HARRY N. STEVENS.

## Release and Satisfaction of Mortgage

Know all Men by These Presents, That the debt secured by mortgage upon the following described — property, situated in —, in — County, in the State of —, to-wit: (describing it), wherein Chas. Anderson is granter and Fred Johnson is grantee, and dated —, a — of which is — in volume —, page —, in the office of the (register or recorder) of deeds of — County, —, has been fully satisfied, in consideration of which said mortgage is hereby released.

FRED JOHNSON.

Witness: ---

#### CHATTEL MORTGAGES

A Chattel Mortgage is a mortgage on personal property. Persons sometimes desire to use their personal property as security and yet retain possession of it, as, for instance, furniture, machinery, tools, a library, etc. This can be done by giving a chattel mortgage, which is really a conditional sale of the property, to the creditor, whose the property becomes if the debt is not paid when due.

## Rules Governing Chattel Mortgages

- A chattel mortgage must, in some of the States, by acknowledged before a justice of the peace or before the county judge.
- 2. It runs out in two years or such other time as prescribed by the State statute.
- 3. No seal is necessary, though commonly used, in a chattel mortgage.
- 4. A person cannot mortgage property which he does not own. Hence a chattel mortgage made by a merchant upon all goods which he may hereafter purchase is of no effect.
- 5. If the mortgagor retains possession, the instrument is of no avail as against third parties unless recorded in accordance with the law of the State where it is made.
- 6. The projecty must be taken possession of by the mortgagor when the mortgage matures, or other creditors can claim the property.
- 7. If the debt is not paid when due the property becomes the creditor's and the debtor is entitled to no surplus.
- 8. It is a criminal offense for the mortgagor to sell the property covered by a chattel mortgago.
- 9. Mortgages of personal property should have a clause providing for the equity of redemption.
- 10. A mortgagee may sell or transfer his mortgage to another, but the purchaser cannot sell the property until the mortgage matures.

## Chattel Mortgage, with Power of Sale

Know all Men by These Presents, That I, John F. Thomas, of the City of Wilmington, State of Delaware, in consideration of five hundred dollars to me paid by Henry A. Da is, of the city and State aforesaid, the receipt of which is hereby acknowledged, do hereby grant, bargain, and sell unto the said Henry A. Davis, and his assigns, forever, the following goods and chattels, to wit:

[Here insert an accurate list of the articles mortgaged, giving a full description of each.]

To Have and To Hold, All and singular the said goods and chattels unto the mortgagee herein, and his assigns, to their sole use and behoof forever. And the mortgagor herein, for himself and for his heirs, executors, and administrators, does hereby covenant to and with the said mortgagee and his assigns, the said mortgagor is lawfully possessed of the said goods and chattels, as of his own property; that the same are free from all incumbrances, and that he will warrant and defend the same to him, the said mortgagee and his assigns, against the lawful claims and demands of all persons.

Provided, Nevertheless, That if the said mortgagor shall pay to the

mortgagee, on the tenth day of May, in the year 1911, the sum of five hundred dollars, then this mortgage is to be void, otherwise to remain in full force and effect

And Provided Further, That until default be made by the said mortgagor in the performance of the condition aforesaid, it shall and may be lawful for him to retain the possession of the said goods and chattels, and to use and enjoy the same; but if the same or any part thereof shall be attached or claimed by any other person or persons at any time before payment, or the said mortgagor, or any person or persons whatever, upon any pretense, shall attempt to carry off, conceal, make way with, sell, or in any manner dispose of the same or any part thereof, without the authority and permission of the said mortgagee or his executors, administrators, or assigns, in writing expressed, then it shall and may be lawful for the said mortgagee, with or without a sistance, or his agent or attorney, or his executors, administrators, or assigns to take possession of said goods and chattels, by entering upon any premises wherever the same may be, whether in this county or State, or elsewhere, to and for the use of said mortgagee or his assigns. And if the moneys hereby secured or the matters to be done or performed, as above specified, are not duly paid, done, or performed at the time and according to the conditions above set forth, then the said mortgagee, or his attorney or agent, or his executors, administrators, or assigns, may by virtue hereof, and without any suit or process, immediately enter and take possession of said goods and chattels, and sell and dispose of the same at public or private sale, and after satisfying the amount due, and all expenses, the surplus, if any remain, shall be paid over to said mortgagor or his assigns. The exhibition of this mortgage shall be sufficient proof that any person claiming to act for the mortgagee is duly made, constituted, and appointed agent and attorney to do whatever is above authorized.

In Wilness Whereof. The said mortgagor has hereunto set his hand and seal this tenth day of May, in the year of our Lord one thousand nine hundred

and eleven.

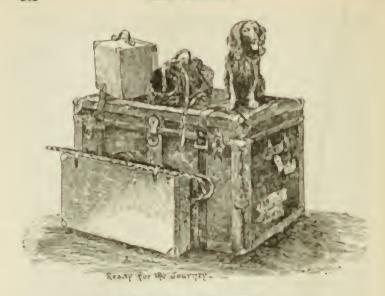
JOHN F. THOMAS. (SEAL)

Sealed and delivered In presence of William Wise, Harrison Wool.
State of Delaware, 88.

Sussex County. Sussex County. This mortgage was acknowledged before me by J. F. Thomas, this tenth Cay of May. A. D. 1911.

ANDREW WHITE, Justice of the Peace.





## NATURALIZATION

All foreigners not born within the jurisdiction of the United States are regarded as aliens until they are naturalized.

An alien has not the right to vote at elections of officers of the government, State, county, city or town, neither can be hold a public office nor serve on a jury before having declared his intention of becoming a citizen

Rights of Aliens.—An alien is entitled to all the privileges of a citizen, except political rights. He can buy and sell real estate and personal property, make contracts and sue and be sued; he is entitled to the full protection of the government in his person and his property.

## HOW TO BECOME NATURALIZED

1. Declaration of Intention.—Two years before he can be admitted as a citizen an alien must declare his intention to become a citizen of the Unitel States before a federal court, or some local court of record, or the clerk of either of such courts. This declaration entitles him to a vote in most of the States. He must take the following oath before the court:

I, Jacob M. Becker, do swear that I will support the constitution of the United States and that I do absolutely and entirely renounce and abjure forever all allegiance to any foreign Prince. Potentiate, State or Sovereignly whatsoever, and particularly do absolutely and entirely renounce and abjure all allegiance and belief to the Kingdoin of Prussia, whereof I was a subject.

JACOB M. BECKER.

Sworn and ub cribed in open court this 20th day of December, A. D. 1910.

- 2. Naturalization Completed.—Two years after filing his deciaration of intention, having been a resident of the United States for five years, he again appears in court, giving written proof that he has been long enough in the United States to become a citizen, and makes outh of his allegiance as a citizen, accompanied by the eath of a witness, giving proof of his residence and moral character.
- 3. If an alien has served in the army or navy of the United States and can show papers of an honorable discharge from service, he can be naturalized after having lived one year in any State or territory and giving proof before the court of such residence.
- 4. Minor Resident Aliens.—A person having arrived in the United States under the age of eighteen years and having continued such residence until the time of his application for citizenship may at the age of twenty-one years, having lived in the United States five years, inclusive of the three years of his minority, be admitted as a citizen without making the formal declaration.
- 5. Widow and Children of Declarant.—If an alien should die after he had legally filed his declaration and taken the necessary oath of affirmation, but before he is actually naturalized, then his widow and children are entitled to all the rights and privileges of citizens upon taking the required oaths or affirmation which would have been required of him.
- 6. Children of Naturalized Persons.—Children of naturalized persons, if under twenty-one years of age at the time of the naturalization of their parents and residing in the United States, are considered as citizens thereof; and the children of citizens of the United States, though born in a foreign country, are citizens of the United States.
- 7. Certificate of Naturalization.—A person who has been naturalized according to law is entitled to a certificate, which is issued under the hand of the clerk and seal of the court. Such

certificate may in certain circumstances be of much importance to a naturalized person and should be obtained and preserved.

Chinese Not Eligible.—The naturalization of Chinamea is expressly prohibited by Sec. 14, Chap. 128, Laws of 1882.

#### CITIZENSHIP AND SUFFRAGE

Naturalization, or citizenship, is governed by national law, which provides that no alien shall be naturalized until after five years' residence.

Suffrage, or the right to vote, is governed by the laws of the different States.

A Naturalized Citizen is not entitled to vote unless the law of the State where naturalized confers the privilege upon him, and in many States an alien may vote six months after landing, if he has declared his intention, under the laws of the United States, to become a citizen.

Inhabitants of Insular Possessions—By the act of 1900 creating Hawaii a territory the inhabitants were declared to be citizens of the United States. The inhabitants of the Philippines and Porto Rico are entitled to full protection under the constitution, but not to the privileges of United States citizenship until Congress so decrees, by admitting the countries as States or organizing them as territories.

## QUALIFICATIONS FOR VOTING

In all the States except Colorado, Idaho, Utah, and Wyoming, the right to vote at general elections is restricted to males of twenty-one years of age and upward.

Women are entitled to vote at all elections, the same as men, in Colorado, Idaho, Utah, and Wyoming, and at school elections in Connecticut Illinois, Iowa, Kansas, Kentucky, Massachusetts, Minnesota, Nebraska, New Jersey, New York, North Dakota, Ohio, Oregon, South Dakota, Vermont, Washington, and Wisconsin.

In New York women otherwise qualified, but for sex, vote at village elections and town meetings to raise money by tax or assessment if they own property in the village or town.

Persons Unable to Read cannot vote in Connecticut In California a person unable to read the constitution in English and to write his name cannot vote. In Massachusetts in order to vote a person must be able to both read and write. In Missis-

sippi a voter must be able to read or understand the Constitution.

In all the States persons convicted of felony, and in most of the States paupers, idiots and lunatics are excluded from suffrage.

## Naturalization Papers

#### DECLARATION OF INTENTION

I, A. B., do declare, on oath, that it is bond fide my intention to become a citizen of the United States, and to renounce forever all allegiance and fidelity to all and any foreign prince, potentiale, state, and sovereignty whatever; and particularly to Edward VII, King of the United Kingdom of Great Britain and Ireland.

A. B.

Sworn in open court, this } \_\_\_ day of \_\_\_, 19\_\_.

 I. T. clerk of the —— court of ——, do certify that the above is a true copy of the original declaration of literation of A. B. to become a citizen of the United States, remaining on record at my office.

In testimony whereof, I have hereunto subscribed my name and affixed [SEAL] the seal of the said court, the —— day of ——, one thousand nine hundred and ——.

#### Oath of Alien

#### UNITED STATES OF AMERICA

STATE OF NEW YORK, LAR.

A. B., being duly sworn, doth depose and say, that he is a resident in the State of New York, and intends always to reside in the United States, and to become a citizen thereof as soon as he can be naturalized and that he has taken such incipient measures as the laws of the United States require, to enable him to obtain naturalization.

Sworn before me, the --- day of ---, 19-.

J. S., Clerk of the U. S. Dutrict Court.

## Certificate of Citizenship

of naturalization, and to repeal the acts heret f re passed on that higher," passed May 26, 1824. And the sail A B, having the reupon probe fit the court such evidence, made such declaration and renewlater, and taken a hoath, as are by the sail acts required.

Thereupon it was order 1 by the self court, that the said A. It be admitted, and he was accordingly admitted by the said of its be a court of the United States of America.

In testimony whereof, the seal of the sail court is here to affixed the ——day of ——, in the percentage of nine has in it is a limit and in the ——year of our in here and note.

Fer curiam.

L. T., Clerk.

The Registration of Voters is required in the states of Alabama, California, Colorado, Connecticut, Forda, Georgia, Idaho, Illinois (in Cook County, if unreal tered, voter cannot swear in his vote), Iowa (in cities of 3,500 crover), Kan as (in cities of the first and second class), Kentucky (in iner, rated towns and cities), Louisiana, Maine, Maryland, Manachusetts, Michigan, Minnesota, Mislicippi, Mienuri (in cities of 25,000 crover), Montana (in cities of over 7, 10), New Jerey, New York, North Carolina, North Dakota (in tewns of 20 crover), Ohio (in cities of over 14,000), Oklahema (in cities of over 2,500), Oresen, Pennsylvania, South Carolina, South Dakota, Rhede Idahol By non-taxpayers), Tennesse, Utah, Verment, Virginia, West Virginia, Wisconsin and Wyomin 3.

In Pennsylvania voters are regitered by the a second.

Registration is not required in Arkan and, Inchana, New Hamp-shire, or Texas.

# OFFICIAL POSITIONS UNDER THE CIVIL SERVICE ACT

The Civil Service Act, as it is commonly called, or the 'Act to Regulate and Improve the Civil Service of the United States," as it is officially designated, was passed in January, 1833. It provides for the appointment of three commissioners, a chief examiner, a secretary, and other employees, and makes it the duty of the commissioners to aid the President in preparing rules for carrying the new act into effect, to make regulations to govern all examinations held under the provisions of the act, and to make investigations and report upon all matters touching

the enforcement and effect of the rules and regulations. The address of the commissioner is Washington, D. C.

Number of positions.—There are over 335,000 positions in the executive civil service, about half of which are subject to competitive examination.

Qualifications of Applicants.—Applicants for examination must be citizens of the United States, and of the proper age. No person using intoxicating liquors to excess may be appointed. No discrimination is made on account of sex, color, or political or religious opinions. The limitations of age vary with the different services, but do not apply to any person honorably discharged from the military or naval service of the United States by reason of disability resulting from wounds or sickness incurred in the line of duty.

How App ication must be Made.—Persons seeking to be examined must file an application blank. The blank for the departmental service at Washington, railway mail service, the Indian school service, and the government printing service should be requested directly of the civil service commission at Washington. The blank for the customs, postal, or internal revenue service must be requested in writing of the civil service board of examiners at the office where service is sought. These papers should be returned to the officers from whom they emanated.

Examinations are open to all persons qualified in respect to age, citizenship, legal residence, character, and health. More than one thousand local boards of examiners, designated by the commission, conduct examinations, make certification of eligibles, and perform such other work as may be assigned to them, at postoffices, custom houses, mints, and other local government institutions.

Register of Eligibles.—The name of each person obtaining a grade of 70 on the basis of 100 is entered in the order of his rating on the register of eligibles, with the names of those entitled to military or naval preference under Section 1,754, R. S., ahead of all others.

Appointments.—In case of a vacancy not filled by promotion reduction, transfer, or reinstatement, the highest three of the sex called for on the appropriate register are certified for appointment, the apportionment being considered in appointments at Washington. In the absence of eligibles, or when the work is of short duration, temporary appointments, without examination, are permitted. The number of women applying for

clerical places is greatly in excess of the calls of appointing officers. The positions to which the largest numbers of them are appointed are those of assistant microscopist in the branch offices of the Bureau of Animal Industry at the various stockyards throughout the country, and teachers, matrons, seamstresses, etc., in the Indian service. A few receive appointments as stenographers and typewriters in the departmental service, and a few are appointed to technical and professional places.

Preference Claimants.—Persons who served in the military or naval service of the United States, and were discharged by reason of disabilities resulting from wounds or sickness incurred in the line of duty, are, under the civil service rules, given certain preferences. They are released from all maximum age timitations, are eligible for appointment at a grade of 65, while all others are obliged to obtain a grade of 70, and are certified to appointing officers before all others. Subject to the other conditions of the rules, a veteran of the rebellion or of the war with Spain, or the widow of any such person, or any army nurse of either war, may be reinstated without regard to the length of time he or she has been separated from the service.

Dismissals and Removals .- The civil service rules provide that no person in the executive civil service shall dismiss, or cause to be dismissed, or make any attempt to procure the dismissal of or in any manner change the official rank or compensation of any other person therein, because of his political or religious opinions or affiliations; that no removal shall be made from any position subject to competitive examination except for just cause and upon written charges filed with the head of the department or other appointing officer, and of which the accused shall have full notice and an opportunity to make defense; and that no person in the executive civil service shall use his official authority or official influence for the purpose of interfering with an election or controlling the result thereof. Such rules also provide that any person in the executive civil service who shall wilfully violate any provision of the civil service act or rules shall be dismissed from office.

Political Assessments.—The civil service act contains provisions forbidding any person in the service of the United States from levying upon or collecting from persons in the executive civil service contributions to be devoted to political objects, the collection of such contributions by any person in any public-building of the United States, or discrimination against persons

who do not make such contributions or render political service. A violation of any of the provisions concerning political assessments, or their collection in a public building of the United States, is declared to be a misdemeanor, punishable by a fine not exceeding five thousand dollars, or by imprisonment for a term not exceeding three years, or by such fine and imprisonment both in the discretion of the court. The act also declares that when rules to carry its provisions into effect shall have been promulgated, "it shall be the duty of all officers of the United States in the departments and offices to which any such rules may relate, to aid, in all proper ways, in carrying said rules, and any modifications thereof, into effect."

Publications of the Commission.—Among the publications of the commission for free distribution are the following:

Manual of Examinations, giving places and dates of examinations, rules by which papers are rated, descriptions of examinations, specimen questions, and general information.

The Civil Service Act, Rules and Regulations.

The Annual Reports of the Commission, showing its work. These annual reports, of which nineteen have been issued, may be consulted at public libraries.

## PARTNERSHIP

A partnership exists when two or more persons combine their property, their labor, their skill, or all of these in business, to share the gains and losses in certain proportions.

The Firm is the name, style or title under which the partners do business, and also means the partners themselves, taken collectively. The firm name should be set forth in the articles.

## DIFFERENT KINDS OF PARTNERSHIP

A General Partnership is constituted between individuals if they agree to enter into a general or particular business, to share the profits and losses together without fixing any limitations or conditions.

A Special or Limited Partnership is an agreement entered into to allow a *special* partner, whose name does not appear in that of the firm, to put in a limited amount of capital and to receive a corresponding share of the profits, and be held correspondingly responsible for the contracts of the firm.

Such partnerships were unknown to the common law, and

the limitation of liability is secured in this country only by strict compliance with the particular requirements of the statutes of the several States on the ubject.

The statutes generally require us has partnership to be desired in a certificate, acknowledged like a desl, which must set forth the firm name, nature of business, name of general and partners, distinguished as such, and the amount which each special partner contributes.

An Ostensible Partner is one who is known as such to the world

A Secret Partner is one who is not openly or one ally so declared. He is not liable for debts central to lafter his retirement, although he has given no notice of the same.

A Dormant or Silent Partner is on who ta' is no part in the transaction or control of the business, but a area in the profits and losses according to certain a cree ments.

A Nominal Partner is held out to the world as such without actually participating in the profits and losses of the business.

#### HOW PARTNERSHIPS ARE FORMED

All persons who are legally competent to do business for themselves may enter into partnership.

A partnership may be formed by a mere verbal agreement and stand in law, but a written agreement is the only safe one, and he who neglects it will doubtless have reason to regret it later.

The parties may agree as they please as to sharing profits or losses, but in the absence of writing to prove the contrary the law will assume that partners share profits and losses equally.

The articles of agreement should be drawn up with special care in writing the details of conditions, liabilities and proportionate share of profits or loss fully stated.

How Soon a Partnership is in Force.—It is presumed that a partnership commenced at the time the articles of copartnership are drawn unless otherwise stated.

Use of Name in Partnership.—When a partner with lraws from a firm, but allows his name to be used as before, or if one lands his name to a firm, in either case he is held responsible to third persons as a partner.

Suing Partners.—It is generally supposed that one partner cannot sue another. This is not wholly true A partner can sue for a balance due him after settlement of general accounts or for a balance due him on some specific account. It is, how-

ever, best to appeal to a court of equity, for that court can do for partnership what the law cannot do.

#### DISSOLUTION OF PARTNERSHIP

A partnership may be dissolved by mutual consent, by expiration of predetermined time, by death of one of the partners, by insanity, by the bankruptcy of either partner, or by the court for any good cause, such as dishone ty of one partner against the rest, or incapacity caused by babitual drunkenness or conviction of any crime.

A partner may withdraw at any time if no time for the continuation of the partnership is mentioned in the articles of agreement, but he must give due notice of his intention to the other partners.

If the time for the continuance of the partnership is mentioned, a partner can nevertheless withdraw at any time, but he is responsible to the firm for damages caused by the breach of his promise.

If a partner dies the surviving partners alone have the right to settle up the business. To his heirs and legal representatives they need only to render an account of the busine.

Notice to be Given.—Upon the dissolution of a partnership by mutual consent it should be indersed on the articles of copartnership and a notice given in some prominent newspaper. Special notice should also be sent to each one of the creditors of the firm.

Authority of Partners.—As a general rule the whole firm and each member of it is bound by the acts and contracts of one partner, because in the eye of the law the act or contract of one is regarded as the act of all. Each is regarded as the agent of all without any express authority being given. Thus, loans, purchases, sales, assignments, pledges, or mortgages effected by one partner on the partnership account, and with good faith in the third party, are binding on all the firm.

So is also release by one a release; notice to one is notice to all; demand of one is demand of all. In matters, however, not connected with the partnership, but intended for his own personal interests, the firm is not bound.

Liability of the Several Partners.—For the payment of partnership debts the property of the firm, both real and per onal, as also that of each individual partner, is held responsible for amount of the unpaid partnership debt.

Partners in order to bind all must act in unison; two members of a firm cannot conclusively bind a third. If one of my partners were about making a trade with A of which I do not approve, and I thus express my disent to A the trade if consummated will not bind me, provided I give notice in time to prevent A from entering ignorantly into it.

Individual Debts of Partners.—If a partner has individual debts, then his interest in the firm is held responsible for them, after the debts of the firm have been paid. The liabilities of the firm, however, always have the first claim upon its own property.

Liabilities of a New Partner.—A new partner is not responsible for debts of the firm contracted by the same previous to his admission.

Selling of a Partner's Interest.—No partner can sell his interest to an outside party, in order to have him take his place, without the consent of the other partner.

Authority of Partners after the Partnership is Dissolved.—After dissolution each partner has the right to settle up the business, unless the partners agree otherwise and give due notice thereof. He can, however, create no new obligations, but only settle up the old ones. The statute law of the State should be carefully complied with in this respect.

The following forms will serve as models for drawing up articles of copartnership:

## Articles of Copartnership

Articles of Agreement made and concluded this first day of January, in the year A. D. one thousand nine bundred and eleven, between Henry R. Raymer, of the first part, and Charles B. Werner, of the second part, both of the City of Cincinnati, County of Hamilton, State of Ohio.

The said parties have agreed to associate themselves as copartners for the purpose of carrying on the General Dry Goods Business at No. 450 Cleve-

land Avenue, in the City of Cincinnati.

 The name, title, and style of such partnership shall be Raymer & Werner and it shall continue three years from date hereof, except in case of the deatn of either of the said partners within the said term.

2. That the said Henry Raymer contribute Six Thousand Dollars (\$6,000)

and the said Chas. Werner Two Thousand Dollars (\$2,000).

 All the net profits arising out of the business shall be divided in the following proportions: Three-fourths to the said Raymer and one-fourth to the said Werner.

4. That books of account shall be kept, in which shall be entered a full and exact account of all purchases, sales, transactions, and accounts of said firm, and which shall always be open to the inspection of both parties and their legal representatives respectively.

3. That the said Henry Raymer shall have exclusive charge of all the buying for the firm.

 Each partner shall devote all his time to the said business and will use his best efforts to make the business successful and promote the interests

of the firm in every way.

7. Nother party shall assume any obligation or liability in the name of the firm for the accommodation of any other person or persons whatsoever without the consent of the other party; nor shall either party lend any of the funds of the firm without the consent of the other partner.

And it is further agreed that if either party violates any of the afor, ald art des of agreement the other shall have the right to descoive this copartier-

ship immediately upon becoming inf rm 1 of u h volation.

In Witness Whereof, we have hereunto set our hands and seals the day and year above written.

HENRY R. RAYMER, [SEAL] CHARLES B. WERNER, [SEAL]

Executed and delivered in the presence of Since H. R. Burnows, B. M. MILLER.

## Articles of Limited Partnership

Articles of Partnership agreed upon Lais first day of May, A. D. 1911. between Henry R. Raymer of the first part, and Charles B. Werner, of the second part.

The parties hereto agree to form a limited partners ip, under the law providing for limited partnerships, under the style of Herry R. Raymer, as retail dealers in dry goods, to be conducted in the City of Cincinnati, County of Hamilton, State of Ohio, to commence this day and continue three years.

Henry R. Raymer is to be the general partner, and contribute to the capital \$4,000. He is to have charge and management of the business and devote his time and attention to it, and use his best exertions to make it profitable. He is to keep correct and proper books of account, in a proper manner, to show all the partnership transactions, which are to be open for examination to said Werner at all times, and shall communicate to said Werner, from time to time, all information that he may desire as regards the business.

Charles B. Werner is to be the special partner, and, at the time of executing these articles, has contributed to the capital eight thousand dollars (\$8,000) in card to the common stock.

From the profits, if any, each partner is to receive the interest upon his contribution to the capital, and the residue of the profit is to be divided between them. An accounting is to be had once in six months, the profits and losses ascertained, and the losses, if any, are to be borne by the partners in proportion to their respective contributions to the capital.

HENRY R. RAYMER, (SEAL) CHARLES B. WERNER. (SEAL)

in the presence of
H. R. Burrows,
B. M. MILLER.

## Certificate of Limited Partnership

This is to Cert'y. That the series of the statute of the State of Oho formula is the firmulame of Henry R. Hayers, that the gradual is the top to the transacted is that of retail the state of the stat

Dated this first day of May, 1911,

Hear I Lavusa,

CITY OF CINCINNATI, | as.

On the first day of May, 1911, before me can libery I. Hay r and Charles B. Werner, to me known to be the individual and related and who executed the above certificate, and they severally ack we god that they executed the same.

[BEAL]

WILLIAM LOURING.

## Dissolution of Partnership

We the Undersigned do mititally agree that the with mention is partnership be and the same is hereby do dv 1, event for to propose of the final liquidation and settlement of the boundaries is the settlement wholly to cease and terminate.

In witness whereof, we have hereunto at our hands and seals the first day of January, 1912.

HENRY IL RAYMER, (SEAL) CHAS, B. WERNER, (SEAL)

Signed, sealed, and delivered in presence of FRED PORTER,
ALLEN MORTEN.

## Notice of Dissolution

Notice is hereby given that the partner-hip heretofore existing between Henry R. Raymer and Chas. B. Werner, of Cinc. a. tl. Ohio, under the from name of Raymer & Werner, is this first day of January, 1912, decived by mutual consent.

HENRY R. RAYMER, CHAS. B. WERNER,

The business will be continued at Cincinnati by H ry R. Raym r, who is authorized to settle the affairs of the sail firm.

Cincinnati, January 1, 1912.

## PASSPORTS

A passport is a written permit to citizens of this country to travel unmolested in any foreign country. It recommends there to the protection of foreign governments where they may visit.

The Secretary of State of the United States, at Washington, is alone properly authorized to issue passports in the United States, but the ministers and other diplomatic representatives of our government abroad may grant, issue and verify them.

Application for a passport by a person in one of the insular cossessions of the United States should be made to the chief executive of such possession.

None but citizens of the United States can receive pass ports. The Government charge is \$1.00. Notary fee, 25 cents.

Any officer granting unlawfully a passport subjects himself to punishment by fine or imprisonment.

Passports may be issued by collectors of customs to United States vessels visiting foreign ports; and the master of a ship who sails without one to a foreign port makes himself liable to puntahment.

The name, age and residence of the applicant, with a description of his personal appearance, are entered in it, to properly identify him.

# PATENTS, TRADE MARKS AND COPYRIGHTS

## PATENTS

A patent is a written instrument issued by the national government, giving the inventor the exclusive right to use, manufacture and sell his invention or improvement for a given term of years within the United States.

Without such a patent on his part any one else can use or sell anything he has invented. A patent secures to him the exclusive right.

A patent lasts for seventeen years; after that any one can make, use or sell the thing patented.

The patent is designed to encourage and protect inventions.

How Obtained.—To obtain a patent, application must be made the Commissioner of Patents, accompanied by carefully repared papers and drawings, describing the invention. These

are examined by the government officers to see whether the case is a proper one for a patent, and if it is, the patent (also called letters patent) is signed and sent to the inventor. Furthere may also obtain patents as well as citizens of the United States.

A complete application comprises the petition, specification, oath and drawings and the model of specimen when required

The Specifications.—In framing the specification it is well to pursue the following order.

1. Preamble giving the name and residence of the applicant and the title of the invention.

2. General statement of the object and nature of the invention.

3. Brief description of the drawings, showing what each view represents, unless no drawing is practicable.

4. Detailed description, explaining fully the alleged invention and the manner of constructing, practicing, operating and using it.

5. Claim or claims.

6. Signature of inventor.

7. Signatures of witnesses.

The Oath.—The applicant, if the inventor, must make oath that he believes himself to be the first and original discoverer of inventor of the art, machine, manufacture, composition or improvement for which he desires a patent, and that to his best knowledge and belief the same was never before known or used.

Drawings.—The applicant for a patent must furnish a drawing of his invention where the nature of the case admits of it. Drawings must be made upon pure white bristol board. The size of the sheet must be exactly ten by fifteen inches, leaving a margin of one inch all around the drawing.

All drawings must be made with a pen and with India ink.

The inventor's signature must be placed at the lower righthand corner of the sheet and those of the witnesses at the lower left-hand corner.

Drawings should be rolled, not folded.

Models must clearly exhibit every feature of the machine which forms the subject of the claim, but no other matter except for illustration.

A working model is best where it can be furnished.

Amendments.—The applicant has a right to amend before or after the first rejection, and he may amend as often as the examining officers present any new references or reasons for rejection.

In case an applicant does not prosecute his application for two years after the date when the last official notice was made to him, it will be held that the application has been abandoned.

Extensions.—Patents since March 2, 186., annot be extended except by Congress.

Assignments.—Every patent or any interest therein shall be assignable in law by an instrument in writing. The patentee or his assigns may also grant and convey in like manner an exclusive right under his patent for the whole or any specified part of the United States.

Mark.—Every patented article, before it is sold, must be marked patented, so as to give notice to every one that it is patented

Infringement is the making, using or selling the patented article without the permission of the owner of the patent. Its consequences are twofold: (1) The infringer must pay to the owner of the patent whatever damages the latter suffers through the infringement, equivalent usually to the profits which the infringer has made; (2) the court will compel the infringer to stop. By these two methods the exclusive right is enforced.

## Fees Required by Law

- Application.—On filing each original application for a patent except in design cases, fifteen dollars.
- Original Patent.—On i suing each original patent, except in design cases, twenty dollars.
- 3. In Design Cases. For three years and six months, ten dollars; for seven years, fifteen dollars; for fourteen years, thirty dollars.
  - 4. Cave. t. Not available since 1910.
- 5 Re-Issue of Patents.—On every application for the reissue of a patent, thirty dollars.
  - 6. Disclaimer. On filing each disclaimer, ten dollars.
- 7. Extension of Patent.—On every application for the extension of a patent, fifty dollars
- 8. Grant of Extension.—On the granting of every extension of a patent, fifty dollars.
- 9 First Appeal.—On an appeal for the first time from the primary examiners to the examiner-in-chief, ten dollars.
- 10 Every Appeal.—On every appeal from the examiner-inshiel to the commissioner, twenty dollars.
  - 11. Certified Copies of Patents. For certified copies of patents

and other papers, including certified printed copies, ten cents per hundred words

- 12. Recording.—For recording every a ignment, agreement, power of attorney, other paper, of three hundred and under one dollar; of over three hundred and under one thou and words, two dollar; of over one thou and words, two dollars; of over one thou and words, three dollars.
- 13. Copies of Drawing. For copie of drawing, the responsible cost of making them
- 14. Full Information.—These fee may be paid to the Commissioner of Patent, or to the Transver or or of the literatures of the United State. If you do not be seen a patent write to the Commissioner of Patent Washington D.C., and you will receive all the necessary paper, blank and complete instructions and directions

#### CAVEATS

A caveat, under the patent law, is a natice given to the calles of the caveator's claims as inventor, in order to prevent the grant of a patent to another for the same alless linverties up an application filed during the life of a caveat without notice to the caveator.

Any person who has made a new invention or discovery, and desires further time to mature the same, may, on payment of a fee of ten dollars, file in the patent office a caveat setting forth the object and the distinguishing characteristics of the invention, and praying protection of his right until he shall have matured his invention. Such caveat shall be filed in the confidential archives of the office and preserved in secrecy, and hall be operative for the term of one year from the filing there of. The caveat may be renewed, on request in writing, by the payment of a second fee of ten dollars, and it will continue in force for one year from the payment of such second fee.

The caveat must comprise a specification, eath, and when the nature of the case admits of it, a drawing, and, like the application, must be limited to a single invention or improvement.

#### TRADE MARKS

A trade mark is a mark, emblem or symbol which a merchant or manufacturer uses to denote his own goods. It is usually attached to them and may be in the form of letters, words or ornamental designs. The Right Acquired in a trade mark is the exclusive right to use it, or, in other words, the right to keep others from using that trade mark.

The right may be acquired by a citizen or foreigner and lasts as long as the trade mark is used.

Its Object is to protect both the owner and the public against imitations of an article which has acquired a good reputation. If it were not for this exclusive right, others might place the same mark on their goods, and thus deceive the public into believing they were manufactured by the same firm. This would deprive the one who had built up the trade of the benefit of his industry and skill or defraud the public into buying an inferior article.

Acquiring a Trade Mark.—Copyrights cannot be granted upon trade marks or labels intended to be used for any articles of manufacture.

If protection for such names or labels is defired, application must be made to the patent office, where they are registered, if admitted, at a fee of six dollars for labels and twenty-five dollars for trade marks

Infringement of a trade mark is prevented in the same way as in the case of patents, viz., by a suit against the infringer for damages and for an injunction to compel him to cease using it

What Cannot be Used as a Trade Mark.—A generic name of an article cannot be used as a trade mark. A name merely descriptive, or representing the kind, quality, ingredients or characteristics of the article, is not available as valid trade marks. Geographical names used in their proper sense cannot become valid trade marks.

## COPYRIGHT

Copyright is defined by the act of Congress of 1874 as the liberty of printing, publishing, compiling, executing and vending any original book, map, chart, dramatic or munical composition, engraving, print, photograph or negative thereof, or of a painting, drawing, chromo, statue or statuary and of models or designs intended to be perfected as works of art.

The object of such copyright is to encourage the writing of books or the production of anything that may conduce to the advancement of art and literature and the general improvement of mankin l.

#### COPYRIGHT LAWS OF THE UNITED STATES

How to Obtain Copyright.—The following requirements are prescribed by Acts of Congress, approved March 4, 1909 and August 24, 1912.

The Application for registration of copyright must specify to which of the following classes the work to be copyrighted belongs:

(a) Books, including composite and cyclopedic works, directories, gazetteers, and other compilations; (b) periodicals including newspapers; (c) lectures, sermons, addresses prepared for oral delivery; (d) dramatic or dramatico-musical compositions; (e) musical compositions; (f) maps; (g) works of art; models or designs for works of art; (h) reproductions of a work of art; (i) drawings or plastic works of a scientific or technical character; (j) photographs; (k) prints and pictorial illustrations; (l) motion picture photo-plays; (m) motion pictures other than photo-plays.

Necessary Steps to Secure Registration.—For works reproduced in copies for sale: 1. The work must be published with copyright notice, which in case of books, etc., may be as follows: "Copyright, 19..., by........................." In case of articles embraced in classes f to k, inclusive, the notice may consist of the letter O inclosed within a circle, accompanied by the initials, monogram, mark or symbol of the copyright proprietor, provided his name appears elsewhere on the copies. 2. Fromptly after publication of the work two copies of the best edition must be sent to the Copyright Office, Library of Congress, Washington. D. C., with application for registration.

In case of motion picture photo-plays and of motion pictures other than photo-plays a description of the work must be filed and a money order payable to the Register of Copyrights for the

statutory requisition fee of \$1.00.

In case of books by American authors, or permanent residents of the United States, the copies deposited must be accompanied by an adidavit, under the official seal of an officier authorized to administer oaths, stating that the typesetting, printing, and blnding of the book have been performed within the United States. Adidavit and application forms will be supplied by the copyright office on request.

Books of foreign origin in a language or languages other than English are not required to be manufactured in the United States. In the case of a book in the English language published abroad before publication in this country, an ad interim copyright for 30 days from the day of the deposit of the foreign copy may be secured by depositing in the copyright office one complete copy of the foreign edition within 30 days after its publication abroad. If two copies of such book manufactured in this country are deposited with application for registration and fee (\$1) during the

ad Interim term, the copyright shall be extended for the full term of 28 years.

For works not reproduced in copies for sale: Copyright may also be had of certain classes of works (see a, b, c, below) of which copies are not reproduced for sale, by filing in the copyright office an application for registration, with the statutory fee of \$1.00, sending therewith: (a) In the case of lectures or other oral addresses or of dramatic or musical composition, one complete manuscript or typewriten copy of the work. This privilege of registration, however, does not exempt the copyright proprietor from the deposit of printed copies of a dramatic or musical composition or lecture where the work is later reproduced in copies for sale. (b) In the case of photographs not intended for general circulation, one photographic print. (c) In the case of works of art (painting, drawings, sculpture); or of drawings or plastic works of a scientific or technical character, one photogrape or other identifying reproduction of the work. In case of a motion picture photo-play, a title and description and one print taken from each scene or act. In case of a motion picture other than a photo-play, a title and description with not less than two prints to be taken from different sections of a complete motion picture. In all these cases, if the work is later reproduced in copies for sale, two copies must then be deposited.

Fees .- For registration of any work subject to copyright \$1.00, which sum is to include a certificate of registration under seal. But only one registration at one fee is required in the case of several volumes of the same book deposited in the copyright office at the same time. For every additional certificate of registration, or copy of record under seal, 50 cents. In the case of photographs the fee shall be 50 cents where a certificate is not requested. For recording and certifying an assignment of copyright, or for a certified copy of an assignment, \$1.00, if the inetrument is not over three hundred words in length; if more than three hundred and less than one thousand words in length, \$2.00; if more than one thousand words in length, \$1.00 additional for each additional one thousand words or fraction thereof over three hundred words. For comparing a copy of an assignment with the record of such document in the covpright office and certifying the same under seal, \$1.00. For recording the transfer of the proprietorship of copyright article, 10 cents for each title of a book or other article, in addition to the fee prescribed for recording the instrument of assignment. For recording an extension or renewal of copyright, 50 cents. Remittances should be made by money order payable to the Register of Copyrights. Forms for application for copyright registration will be furnished on request

Duration of Copyright.—The original term for copyright runs for twenty-eight years. Within one year prior to the expiration of the original term, the author, if living, the widow or widower of the author, or the children of the author if he be not living; or if none of these be living then the author's executors, or in the absence of a will, the author's next of kin may sure a renewal for a further term of twenty-eight year, nearly fifty-eix years in all. In case of composite work, if the propertor secured the original copyright, he may also a cure the reason.

Assignments.—Copyrights are as ignable by any in from at of writing. Every assignment of copyright must be read 1 in the copyright office within three calendar month after its execution in the United States or within six calendar month after its execution without the limits of the United State, in default of the bit shall be void as against any subsequent purchase remember for a valuable consideration, without notice, who as a general has been duly recorded. Every as gament of copyright executed in a foreign country must be acknowledged by the read consideration of the United State authorised by law to administer oaths or perform notarial acts. The certificate of such acknowledgment under the hard acts. The certificate of such consular officer or secretary of legation is prima factor evidence of the execution of the intrument.

Penalty for Willful Infringement.—Any per in who shall willfully and for a profit infringement, any copyright, or willfully and or abet such infringement, shall be do not gottly of a musdemeanor, and upon conviction the roll, shall be punish 1 by imprisonment for not exceeding one year or by a fine of not 1 than \$100 nor more than \$1,000 or both, in the discretion of the court.

Foreign Copyright.—Americans to obtain a copyright in Great Britain must have title entered at Stationer's Hall, London, the fee for which is five shillings sterling, and five shillings additional if a certified copy of entry is required. The work must be published in Great Britain or in her dominions simultaneously with its publication in the United States, and five copies of the publication are required, one for the British Museum and four on demand of the Company of Stationers for four other libraries. Copyright may be secured in France by an American by publishing two copies of the publication at the Ministry of the Interior at Paris. No fee or entry title required. Copyright in Canada is to be registered with the Minister of Agriculture at Ottawa; fee, one dollar for registry and fifty cents for certificate, and the work to be published in Canada and two copies deposited

## SIMPLE BOOKKEEPING

Everyone who buys and sells goods of any kind becomes a dealer—a merchant; and every dealer, no matter how imple his business, must keep a record of his transactions if he would know where he stands, whether he is making or losing money, or "breaking even." Such a record is fundamentally necessary in all merchandizing, large or small. Without it a business would fall into confusion.

The art of bookkeeping has become professional. A large concern must have a regularly organized taff of bookkeepers, each member of which has charge of some one part of the work; all being under a head bookkeeper. The systems employed in such cases are based alike on a definite set of working principles, though they vary in form according to the business and its peculiar necessities. Some of the esystems are highly elaborate. All of them require lines of special ability.

The retail dealer who supplies a neighborhood is in his degree as much in need of a record of his transactions as those who deal wholesale or whose retail transactions involve a large number of customers, whether the customers pay cash or have charge accounts. For such a dialer a simple system is sufficient. He requires only a record that will show him at any time what he has bought or sold, how much of it has been paid for and how much charged. In many case, it is enough to have a record of charge transactions, their collection or settlement. His primary record is of each he has paid for goods, and cash received when the goods are sold. That is, cash handed out for goods taken in; and goods handed out for cash taken in.

Between the two stands his profit or his loss so far as concerns his purchases and sales, taken by themselves.

But a real profit or loss cannot be determined until the merchant charges his rent and other expenses as part of the cost of his goods. They are such a part, just as actual, and just as strictly requiring repayment out of the seiling price, as the actual price he paid his whole aler for the goods alone.

Every merchant should know the total cost of his stock of goods. To make himself safe, he mut know allo the exact cost of his help, his rent, his insurance, his taxes, the interest-value of his working capital, the amount he considers his own time worth, and every item for which he has to pay. The total of the e items (westime called "overhead") can easily be reduced to a sum that will repregent a per cent of the sum he paid for his goods, and that per cent must be added to the first cost before be can make a selling price that will yield him a sum exceeding the combined total cost. Therefore the first healing of his simple bookkeeping must show all the costs, just as the second mu t show all the receipts. The difference between the two will show him exactly where he can be He should remember thi: His percentage of proof is in the selling price.

Accounts of the kind discribed can be kept in a book that can be bought from any stationer—a day book, they call it. On the left hand ide of a page let him set down each item of his sales, as he makes them. On the right hand side, opposite each item, let him set down the pricat which he sold the item.

He may keep a private record of the cost of his goods per weight, solld measure, liquid measure, yard measure, count (as per dozen, for example), or article.

Personal accounts with customers are easily kept, each on a page or other space, at the top of which the customer's name is written, with the date at the left and the price at the right. When an account is paid the word "Pald" should be written diagonally across it, with the amount and the date of payment. If a partial payment be made, the charges should be added up, the total at down at the foot of the column as it then stands, and the amount paid set down under and subtracted from it. The remainder is the balance still due.

## HOW TO FIGURE PROFITS

Any per cent of a smaller sum is a smaller per cent of a larger sum. Instance: If 25 is twenty-five per cent of 100, it is only twenty per cent of 125; so that 25 per cent increase over cost is 20 per cent profit in the selling price.

To figure the cost of doing business on gross sales and the percentage of profit on the costs is an error if the initial cost is the only figure used as the base. The percentage of profit should be figured on the selling price, whether prime cost or cost plus selling expense is used. All operating expenses-storage, selling, office expense, and every other item of expense and profit must be added to prime cost and included in the difference between net cost and net selling price.

Most of the business text books used in schools or business colleges assume that if cost (100) be taken as a base, and to this 25 per cent is added as profit, the cost as 100 and the added 25 per cent would make a total of 125; whereas the selling price should be considered as 100 per cent, and the profit would be twenty-five one-hundred-andtwenty-fifths, which would be exactly 20 per cent (not 25

per cent) profit in the sale.

To repeat: The percentage of profit and the percentage of cost of doing business should be figured on the same base.

Separate Capital Accounts .- In every mercantile business two separate amounts of capital are required. One is for investment in merchandise; the other (the working or operating capital) is necessary for operating expenses. selling expinies, and all other expenditures not properly chargeable to merchandise account.

All the capital both amounts-must produce a proper return; otherwise there could be no proper dividends. If the percentage of profit be figured on the cost of merchandise only, whence can the operating capital draw its re-

All these matters must be considered in making selling prices.

Sales totals are easily and readily ascertained, but the total of daily and monthly cost of goods sold is seldom shown in the books. Gros sales are shown daily, but gross costs can only be shown at the end of the year.

The amount of profit depends largely on the volume of busine, so that the percentage of profits to sales is clearly indicative of the character of the year's work. This would not be the case if the percentage of profits were figured on the base of cost.

The percentage of expense of conducting a business may be ascertained readily by dividing the gross expenses by the gross sales. As this percentage of expense is on the sales, it is best to refer the percentage of profit to the sales, to avoid misunderstanding and loss through the use of any other method.

For example, if percentage of profit be figured on the cost and your overhead co t on the sale (you may add 25 per cent to the cost, with an overhead expense of 20 per cent on the selling price) can you expect to make money?

A profit is not made until a sale is actually effected; and this fact farther advances the selling price as the proper base for percentage of profit

The salaries or other form of remun ration of sale men is always reckoned on the ale, and the amount is always based more or less on a percentage of the ale total.

Mercantile or other taxe of a inflir neuro are a seed on a percentage of the annul also. If any polal tax s are levied by the state on the also of any special goods, such as revolvers, drug and on, the amount is always a percentage of the selling prices of such articles, not a percentage of the cot.

To find the actual percentage of profit in any transaction, subtract the cost from the selling price, add two ciphers to the difference, and divide by the selling price.

#### WHAT A BUCKET SHOP IS

A bucket shop is a place where a lame sport can bet on the stock market, and a new hand can get himself robbed. Old hands will not go near one. The new hand is known as "a fall guy."

It pretends to be a brokerage office, though it never buys or sells any stock whatever, as brokers do. It books orders to buy or sell, charges commissions, and "settles" with its customers on the base of market reports. It pays back to its customers enough of their own money to tease them along, until they go broke. Then it wipes them out.

It is a gambling joint, with everything stacked against the outsider. In a bucket shop, a "fall guy" has exactly the same chance that a sheep has with a butcher.

#### COMMERCIAL CREDITS

Commercial credit is mechanical in form and action, functioning through the banks.

A merchant accepts a buyer's check, deposits it in his own bank, and draws his own checks against it. No cash changes hands.

Practically all business is settled in this way by checks—credits. There is not enough cash in the country to settle the business of one active day.

Daily clearances are made between the banks. Each presents at the clearing house the checks it has received that are drawn on other banks. These checks, from and on various banks, meet and offset each other, differences being adjusted by clearing-house checks.

Payments passing between cities are effected by this system or by transmission of bank checks, or by drafts of exchange upon some financial centre.

Settlements between distant points are largely made by offsetting the purchases they make from each other. The bulk of bank credits comes in this way, instead of settlements being made by transmissions of cash passing each other in transit.

It is only by these uses of credit that domestic trade could be carried on at all. It would be impossible to do it by passing money from hand to hand or from place to place. The system is universally established, and is satisfactory as well as safe.

Credit is as sensitive to destruction as the most delicate film or watch spring. Someone has compared injured credit to "a broken piece of beautiful porcelain. You may put it together again and it may seem as good as of old, but the cracks are there and you can not forget that it was broken."

## FARMS AND FARMING

About 878,789,000 acres of land in the United States are in crops and available for crops. This is forty-five per cent of the total land area.

In 1910 there were 370,000,000 acres of unreclaimed arable land. Of this acreage somewhat over 18,000,000 had been reclaimed down to 1918. The area in staple crops increased by 37,000,000 acres between 1914 and 1918, according to a 1919 bulletin of the Bureau of Crop Est.mates Department of Agriculture), an increase of almost ten per cent, which is much greater than the increase in the population of the nation.

This four years increase in cultivated acreage is equivalent to the acreage of all crops in 1910 in the New England States, New York, Pennsylvania, New Jersey, Delaware, Maryland, Virginia, West Virginia and North Carolina. Nearly all of it lies in the north central states, the western side of the Mississippi Valley, and western Oregon and Washington.

A total of 367,000,000 acres was planted in crops in 1918. The report of the Department of Agriculture for 1918, states that "for every 100 acres now tilled, 300 may be utilized when the country is fully settled."

The Agricultural War Effort.—The first year of America's participation in the great war witnessed the nation's record for acreage planted—283,000,000 to the thirteen leading crops, including all the cereals and potatoes, tobacco and cotton, as against 261,000,000 in 1916; 251,000,000 in 1913; and 248,000,000 average for the five years from 1913 down to and including 1918.

The 1918 figure was a gain of 32,000,000 over the year preceding our entry into the war, and of 35,000,000 over the five years average.

## Time of Planting, Quantity of Seed, Etc.

NEW ENGLAND									
Kind of Crop.	Date of Planting.	Amount of Seed per acre.	Weeks to maturity.						
Corn	May 10 to 30	8 to 12 qts	14-17						
Wheat	May 10 to 30. Fail or Syring April to May April to June 20 Apr to May, Sept June 1 to 20. May to June April 15 to May 1 July 1 to August 3.	2 bush	20						
Oats	April to May	2 to 3 bush	11-15						
Barley	April to June 20	do	10-15						
Rye	Apr to May, Sept .	5 to 6 sweeks	40						
Buckwheat	June 1 10 20	1 to 11 bush	10-15						
White Beans	May to June	5 to 10 qts	12.20						
Totaloes	July 1 to August J April 15 to May 5 Seed bed, April	1 D	12.20						
Mangala	Ared 15 to May 5	4 to 6 lb	17-22						
Tohucco	Seed but Arri	4 10 9 10	9 12						
1000000									
A	MIDDLE STA		141 141						
Corn	VITI 20 to May 30	6 to 8 qts	16-18						
Wheat	March to May	2 to 24 hugh	16-17						
Cats	Mach to May	1 40	13-16						
Run	Sent 1 to Oct 1	1 A branks	40-43						
Buckwheat	March to May March to May Sept 1 to Oct. 1. June to July May to June March to May May to June March to July March to July	to 14 bush	8-10						
White beans .	May to June	It buch.	13-14						
Potatoes	Mar h to May	8 to 15 bush.	14-22						
Sweet potatoes	May to June	10 to 12 bush	10-15						
Cabbage	Mrh to July	4 to 8 oz	8-15						
Turn ps	July	2 to 5 llm	10-12						
Mangels	May	10 to 15 bu h	15-18						
Flax	May	20 qts	8-10						
lobacco	May wed bed, March	d 4- 6	15 20						
Hay chaver	Forwary to Apri	6 ots	= = 1 1 = -						
1103; (107111).									
Cana	CENTRAL AND WEST		1 16 20						
When!	April 1 to June 1	o que	40-42						
Onto	Arri 1 to May 1	2 to 3 bush	12-14						
Harlov	Fall or Spring April 1 to May 1 Fall or Spring	2 hugh	11-13						
Rve	Sent 1 to 30	1 to 2 bush	35-40						
Buckwheat	June	do	10-12						
White beans	May 10 to June 10	14 bush	12						
White beans	. May 10 to June 10 . March 15 to June 1	1 bush	10-12 10-20						
		1 to 2 bush do 1 bush. 5 to 10 bush. 1 to 6 lb.	80-819						
# C12 131373	, July 13 to August 30.	1 10 0 111.	10-10						
# C12 131373	, July 13 to August 30.	1 10 0 111.	10-10						
# C12 131373	, July 13 to August 30.	1 10 0 111.	10-10						
# C12 131373		1 10 0 111.	10-10						
Mangels Flax Tobacco.	April to May 15 March 15 to May 15 Seel bed, March April to May	8 to 8 lb. 2 to 3 pecks Oz. to 6 8q. rd 8 to 15 lb .	22-24 15-20 15-18						
Mangels Flax Tobacco. Hay	April 1 to May 15 March 15 to May 15 See I bed, March April to May SOUTHERN * February to May 15	8 to 8 lb. 2 to 3 pecks. Oz. to 6 8q. rd 8 to 15 lb.	22-24 15-20 15-18						
Mangels Flax Tobacco. Hay  Cotton Corn.	April 1 to May 15 March 15 to May 15 Seel bed, March. April to May SOUTHERN # February to May 15 February to June	8 to 8 lb. 2 to 3 pecks. Oz. to 6 8q. rd 8 to 15 lb.	22-24 15-20 15-18						
Mangels Flax Tobacco. Hay  Cotton Corn.	April 1 to May 15 March 15 to May 15	8 to 8 lb. 2 to 3 pecks. Oz. to 6 8q. rd 8 to 15 lb.	22-24 15-20 15-18 20-30 15-20 43						
Mangels Flax Tobacco. Hay  Cotton Corn. Wheat Oats	April 1 to May 15	6 to 8 tb. 2 to 3 pecks. Oz. to 6 8q. rd 8 to 15 lb.  TATES 1 to 3 bush. 2 qts 2 bush. 24 bush.	22-24 15-20 15-18 20-30 15-20 43						
Mangels Flax Tobacco. Hay  Cotton Corn. Wheat Oats Barley	April 1 to May 15. March 15 to May 15. March 15 to May 15. Seel bed, March April to May  SOUTHERN # February to May 15. February to June Sept. to Nov. Feb., May, Sept. April to May	6 to 8 tb. 2 to 3 pecks. Oz. to 6 8q. rd 8 to 15 lb.  TATES 1 to 3 bush. 2 qts 2 bush. 24 bush.	22-24 15-20 15-18 20-30 15-20 43 17 17						
Mangels Flax Tobacco. Hay  Cotton Corn. Wheat Oats Barley Rye	April 1 to May 15. March 15 to May 15. Seel bed, March. April to May SOUTHERN S February to May 15. February to June Sept. to Nov. 1 leb. May, Sept. April to May	6 to 8 lb. 2 to 3 pecks Oz. to 6 8q. rd 8 to 15 lb.  TATES  1 to 3 bush 2 bush 2 bush do 11 bush	22-24 15-20 15-18 20-30 15-20 43 17 17 43						
Mangels Flax Tobacco. Hay  Cotton Corn. Wheat Oats Barley Rye White beans.	April 1 to May 15. March 15 to May 15. March 15 to May 15. Seel bed, March April to May  SOUTHERN #  February to May 15. February to June Spt. to Nov. Teb. May, Sept. April to May Spts mber to October March to May	6 to 8 tb. 2 to 3 pecks. Oz. to 6 8q. rd 8 to 15 lb.  TATES 1 to 3 bush. 2 qts 2 bush. 2 bush. do. 1 to 2 bush.	22-24 15-20 15-18 20-30 15-20 43 17 17 43 7-5						
Mangels Flax Tobacco. Hay  Cotton Corn. Wheat Oats Barley Rye White beans. Cabbage.	April 1 to May 15. March 15 to May 15. March 15 to May 15. Seel bed, March April to May  SOUTHERN #  February to May 15. February to June Spt. to Nov. Teb. May, Sept. April to May Spts mber to October March to May	6 to 8 tb. 2 to 3 pecks. Oz. to 6 8q. rd 8 to 15 lb.  TATES 1 to 3 bush. 2 qts 2 bush. 2 bush. do. 1 to 2 bush.	22-24 15-20 15-18 20-30 15-20 43 17 17 43 7-5						
Mangels Flax Tobacco. Hay  Cotton Corn. Wheat Oats Barley Rye White beans Cabbage. Water melons.	April 1 to May 15. March 15 to May 15. March 15 to May 15. Seel bed, March. April to May  SOUTHERN S  February to May 15. February to June Spt. to Nov. Leb. May, Sept. April to May September to October March to May Oct. March to May March 1 to May 10.		22-24 15-20 15-18 20-30 15-20 43 17 17 43 7-5						
Mangels Flax Tobacco. Hay  Cotton Corn. Wheat Oats Barley Rye White beans. Cabbage. Water-melons. Onions Potatoes	April 1 to May 15. March 15 to May 15. March 15 to May 15. Seel bed, March April to May  SOUTHERN # February to May 15. February to May 15. February to May 15. February to May Sept. April to May Sept. April to May Oct. March to May March 1 to May 10. Feb. 1 to April 10. Jun. Feb. 1 to April 10. Jun. Feb. to April 10.	6 to 8 lb. 2 to 3 pecks. Oz. to 6 8q. rd 8 to 15 lb  TATES  1 to 3 bush. 2 bush. 2 bush. do. 1 bush. 1 to 2 bush. 2 to 7 lb. 3 to 10 bush.	20-24 16-20 16-18 20-30 18-20 43 17 43 7-8 14 10-20 10-24						
Mangels Flax Tobacco. Hay  Cotton Corn. Wheat Oats Barley Rye White beans. Cabbage. Water-melons. Onions Potatoes	April 1 to May 15. March 15 to May 15. March 15 to May 15. Seel bed, March April to May  SOUTHERN # February to May 15. February to May 15. February to May 15. February to May Sept. April to May Sept. April to May Oct. March to May March 1 to May 10. Feb. 1 to April 10. Jun. Feb. 1 to April 10. Jun. Feb. to April 10.	6 to 8 lb. 2 to 3 pecks. Oz. to 6 8q. rd 8 to 15 lb  TATES  1 to 3 bush. 2 bush. 2 bush. do. 1 bush. 1 to 2 bush. 2 to 7 lb. 3 to 10 bush.	20-24 16-20 16-18 20-30 15-20 43 17- 17 43 7-5 14 16-20 16-24 11-15						
Mangels Flax Tobacco. Hay  Cotton Corn. Wheat Oats Barley Rye White beans. Cabbage. Water melons. Onions Potators Sweet potatoes. Pumpkins	April I to May 15. March 15 to May 15. March 15 to May 15. Seel bed, March April to May  February to May 15. February to May 15. February to May 15. Feb. May. Sept. April to May September to October March to May Oct. March to May March 1 to May 10. Feb. 1 to April 10. Jan. Feb. to April May to June. April 1 to May 1.	6 to 8 tb. 2 to 3 pecks. Oz. to 6 8q. rd 8 to 15 lb  TATES  1 to 3 bush. 8 qts 2 bush. 22 bush. 1 to 2 bush. 1 to 2 bush. 2 to 7 lb  8 to 10 bush. 10 to 12 bush. 4 to 7 lb	20-24 16-20 16-18 15-20 15-20 43 17 43 7-8 10-20 10-24 11-15 12-15 17-20						
Mangels Flax Tobacco. Hay  Cotton Corn. Wheat Oats Barley Rye White beans. Cabbage. Water melons. Onions Potatoes Pumpkins Tomatoes.	April I to May 15. March 15 to May 15. March 15 to May 15. Seel bed, March. April to May  SOUTHERN S  February to May 15. February to June Sept. to Nov. Feb. May, Sept. April to May September to October March to May Oct., March to May March I to May 10. Feb. I to April 10. Jan., Feb. to April May to June. April 1 to May I. Jan. I to Way I. April 1 to May I. Jan. I to Feb. 19.		20-24 15-20 15-18 20-30 15-20 43 17 43 7-5 14 16-24 11-15 12-15 17-20						
Mangels Flax Tobacco. Hay  Cotton Corn. Wheat Oats Barley Rye White beans. Cabbage. Water melons. Onions Potatoes Pumpkins Tomatoes.	April I to May 15. March 15 to May 15. March 15 to May 15. Seel bed, March. April to May  SOUTHERN S  February to May 15. February to June Sept. to Nov. Feb. May, Sept. April to May September to October March to May Oct., March to May March I to May 10. Feb. I to April 10. Jan., Feb. to April May to June. April 1 to May I. Jan. I to Way I. April 1 to May I. Jan. I to Feb. 19.		20-24 15-20 15-18 20-30 15-20 43 17 43 7-5 14 16-24 11-15 12-15 17-20						
Mangels Flax Tobacco. Hay  Cotton Corn. Wheat Oats Barley Rye White beans. Cabbage. Water melons. Onions Potators Sweet potators Fumpkins Tomatoes. Turnips Tobacco.	April I to May 15. March 15 to May 15. March 15 to May 15. Seel bed, March April to May  February to May 15. February to May 15. February to May 15. Feb. May. Sept. April to May September to October March to May Oct. March to May March 1 to May 10. Feb. 1 to April 10. Jan. Feb. to April May to June. April 1 to May 1.	6 to 8 tb. 2 to 3 pecks. Oz. to 6 8q. rd 8 to 15 lb.  TATES  1 to 3 bush. 2 bush. 2 bush. 1 to 2 bush. 1 to 2 bush. 2 to 7 lb.  8 to 10 bush. 10 to 12 bush. 4 to 7 lb 4 to 9 oz. 2 to 6 lb Oz. to 6 sq. rd.	20-24 15-20 15-18 20-30 15-20 43 17 43 7-5 14 16-24 11-15 12-15 17-20						

#### Relative Number of Plants or Hills in an Acre

Giving the number in an acre when the direct and cross rows are of equal or unequal width:

In.	10 in_	12 in.	15 in.	18 in.	20 ln.	2 11	2411	3 ft	#4ft	4 ft	A)ft-	5 1
10	62726						1					
12	52272	43560										
15	41817	34848	27878									
18	34545	260-10	23232	19360								
20	31302	20130	20008	17424	16481							
24	20132	21780	17424	14520	13065	10800						
30			13039									
36	17424	14520	11616	04350	87125	7260	SHOP	4840				
42	14935						107	414	2345			
48	130%s.	10890	8712	72(%)	6534	5445	4100	14(34)	3111	27.72		
54	11616										2151	
		8712		8008				2004				

## Distance Traveled by a Horse in Plowing an Acre of Land

With the quantity of land worked, at the rate of 16 and 19 m.l.s p -7 day of 0 hours:

Width of fur- row in	Miles trav'd in plowing	Acres (		With of fur-	Miles trav d in	Actes (	
inches.	an acre.	18 miles.	16 miles.	row in inch	ri se t	14 m	16 miles.
7 8 9 10 11 12 13 14 15 16 17 19 20	14 1 8 12 1 4 11 9 9-10 9 8 1-4 7 1-2 7 6 1-2 6 1-6 5 3-4 5 1-2 6 1-4 4 9-10	1 1-4 1 1-2 1 3-5 1 4-5 2 1-5 2 1-6 2 1-3 2 1-2 3 1-4 3 1-4 3 1-4 3 1-2 3 3-5	1 1-8 1 1-4 1 1-2 1 3-5 1 3-4 1 9-10 2 1-10 2 1-4 2 2-5 2 3-6 2 3-6 2 3-10 3 1-10	22 #3 24 26 27 28 29 30 31 32 33 34 35	4 1 2 4 1 -4 4 4 3 4 - 5 3 1 -2 3 1 -2 3 1 2 3 1 5 3 1 5 3 1 5 3 2 9 10 2 4 - 6	1 1-5 1 1-3 1 1-2 4 1-2 4 1-2 4 0-10 5 1-4 5 1-4 5 4-5 6 1-3	3 1 2 7 10 9 10 4 1 3 4 1 2 4 1 2 4 1 3 5 1 4 5 5 1 4 5 5 1 4 5 5 1 3 5 1 3 5 1 3 6 3 3 5

#### Measurement of Corn

In Cob.—Two heaping bushels of corn on the cob will make one struck bushel of shelled corn. Some claim that one and one-half bushels of ear will make one bushel of shelled corn. Much will depend upon the kind of corn, shape of the ear, size of the cob, etc.

In Crib.—To measure corn in a crib, multiply the length of the crib in inches by the width in inches, and that by the height of the corn in the crib in inches, and divide the product by 2,748, and the quotient will be the number of heaped bushels of the crib that at the sides, measure the width at the

top and also at the bottom, add the two sums together, and divide by 2, which will give the mean width.

## Capacity or Contents of a Granary, Bin, Crib or Wagon

Multiply the three dimensions—the length, width and depth—in feet (the inches, if any, being reduced to fractions of a foot), multiply the product by the decimal .803564, or deduct one-fifth, which is sufficiently exact for ordinary purposes, and the result is the number of bushels. Where the wagon or crib flares considerably in length or width, it will be necessary to obtain a mean dimension. This is done by taking the longest and shortest measures, with one or more intermediate ones, and dividing the sum of all by the number taken. The quotient will be the mean dimension sought. The greater the flare the larger the number of intermediate dimensions that should be taken to insure accuracy. Corn in the ear, when first cribbed, is estimated at twice the bulk of shelled corn.

## Capacity of Corn-Cribs Ten Feet High

_		-										-		
Leth	10	11	12	13	14	15	16	18	20	23	24	2/3	28	30
£ 34	135	149	162	175	150 221	202	216	243	270 315	297	324	351	375 451	405
51	180	195	218	203	183	270	255 324	324	360	396	432	468	7.03 567	540
readth cless	245	215	270 297	292	315	337	360	405	450	495 545	510	555	693	675
= 6 h	270 293	322	321	350	375	405	432 468	456 527	340 555	5 H 64 I	644 702	702 761	758 519	810
7 73	315	347	37% 405	439	441	472 506	504 5-10	507	630 675	743		519 578		$\frac{945}{1013}$
5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	201	396 421	432	497	538	540	576 612	649	720 765	792 842	918	995	1005	1148
10	405 450 495	495	540 594	526 585 643	567 539 693	607 673 742	644 720 792	729 810 801			1050	1170	1134 1260 1386	1350
12	540	591	845	702	756	810	86-1	972					1512	

## Comparative Value of Good Hay and Other Food for Stock

100 11	os. hay are equal to	100	100 lb by are equal to					
201 " uni 175 " boi 339 " ma 442 " rye 360 " wh 180 " per 2 ) " bu	mips. Total	50 lbs 46 5-1 57 45 105 109 179 179	rye. buckwheat. Indian corn peas and beans, wheat bran. rye bran. wheat, pea and oat chaft, rye and barley mixed.					

## Table Showing Amount of Hay or Its Equivalent Required Each Day for Every One Hundred Pounds an Animal Weighs

Working Horman,	erroren e de la companya de la	- in the
Fatting Over		. (41
Fatting Oven, who a fat		(4)
Mil h Cown	r 1 2 2 10 1	-
Tours trow of tattle		
Pil tra Pia		
Sheep.		LAN M



## How to Tell the Age of Cattle

Age of Cattle. A cow's horn is generally supposed to furnish a correct indication of the are of the animal. This is not always true. However, for ordinary purposes, the following will be found to be approximately correct. At two years of age a circle of thick matter begins to form on the animal's horns, which becomes clearly defined at three years of are, when another circle or ring begins to form, and so on year after year. Its age then can be determined by counting the number of rings and adding two to their number. The rings on the bull's horns do not show themselves until he is five years old so to the number of rings we must add five to arrive at his are. Unless the rings are clear and distinct, this rule will not apply Bailes, dealers sometimes file off some of the rings of old cattle to make them appear younger.

Age of Sheep and Goats.—At one year old they have eight front teeth of uniform size. At two years of are the two middle ones are supplanted by two large ones. At three, a small tooth appears on each side. At four, there are six large teeth. At five, all the front teeth are large, and at six the whole begin to get large.

## To Find the Weight of Live Stock by Measurement

The only instrument necessary is a measure with feet and inch marks upon it. The girth is the circumference of the animal just behind the shoulder blades. The length is the distance from the shoulder blades. The superficial feet are obtained by multiplying the girth and length. The following table contains the rule to ascertain the weight of the animal.

If les than one foot in girth restrict to a feet by eight.

If it is that the sind nore than one, notice for all test by eleven

If he character and more than to remain try your result not by sixteen

If less than even and more than hive, multiply sujerbuild less by twenty-three.

If leath an n = and in r = than seven, inultify = g - rf = 1 feet by therethere.

If he than down and more than mine, multiply sopered test by forty-two.

Example 8. a fit of meaning in grid to fit, a like those for the fit of the f

#### Measurement of Land

If the held be a square or parallelogram, multiply the length in rols by the width in rols, and divide by 160, the number of square rols in in acre. If the held is triangular, multiply the length of the longest side in rols by the greatest width in rols, and divide half the product by 160. If the held be of irregular shape, divide it into triangles, and find the acreage of each triangle as above. All straight-lided fields can be thus measured. Where the sides are crooked and irregular, take the length in rods in a number of place at equal distances apart, add them, and divide by the number of measurements, which will give the mean length; proceed similarly with the width, multiply the mean length by the mean width, and divide by 160. Where the field is in a circle find the diameter in rols, multiply the square of the diameter by 7.854 and divide by 160.

To Lay Out an Acre in Rectangular Form — An acre of land contains 100 square rods, or 43,560 square feet. Hence, to lay out an acre at right angles (square corners), when one side is known, divide the units in the square contents by the units of

the same kind in the length of the known side. Thus, if the known side be 4 rods, divide 160 by 4 and the quotient, 40, will be the depth of the acre-plot. If the length of the known side be 90 feet, divide 43,500 by 90, and the quotient, 48 will be the depth of an acre-plot.

7	ownshi	p	*****	R	arge		_				
-	NORTH Courty.										
	0 -	- 5	4	3	2	1					
	7	8	ก	10	11	13					
157.67	. 18	17	10	15	1 6	13	EAST				
157	19	20	21 -	-12	23	24	2				
	30	20	28	27	20	25					
	31	.32	33	34	35	-36					
			501	IIII							

## Measurement of an Acre Plot

#### 12 rods 10 feet and St inches square make an acre.

## Square Feet and Feet Square in Fractions of an Acre.

Fraction of an acre	Square feet.	al note.	Fract n of	Square	Feet are.
1-16 1-8 1-4 1-3	2722\frac{1}{5445} 10890 14520	521 731 1011 1201	2	21780 43560 87120	147 208 295

#### Amount of Barbed Wire Required for Fences

Estimated number of pounds of Barbed Wire required to fence space or distances mentioned, with one, two or three lines of wire, based upon each pound of wire measuring one rod (16) feet.

	1 Luie.	2 Lines.	3 Lines.	
Square acre		. 101   lbs.		
Si le of a square acre		. 25 lbs.		
Square half acre		. 72 lbs.		
Square mile	1280 lbs	2560 lbs.		
Sille of a square mile	320 lbs			
Rod in length	1 11mm	. 2 lbs.	3 lbs	
00 Rods in length		200 lbs.	300 lbs	
O Feet in length	6 1-16 lbs	124 lbs.	18 3-16 lbs	

## Minimum Weights of Produce

The following are minimum weights of certain articles of produce according to the laws of the United States.

Per Buch	Per Itu hel.
Wheat = 60 lt	os. Dr - l Peaches 3 lbs.
Corn, in the car . 70	" Dried Apple 26 "
Corn, shelle 1 50	" Clover Seed 60 "
Rye	" Flax Seed
Buckwheat 45	" Millet See I 50 "
Barley 45	" Hing rian Gras Seed 50 "
Oats 32	" Timothy Seed . 45 "
Peast	" Blue Gr. See I 11 "
White Beans 10	" Hemp Seed44 "
Ca for Beans 46	" Silt (use life below)
White Potatoe 60	Corn Me 1
Sweet Potators 25	California Lands
Ontons 77	" Malt _ 31 "
Turnipa 55	"   Bran 1

SALT.—Weight provide as adopted to different State run of run 50 to 80 pound. Our old in Peris, lyanga brechold at 80 pounds, and in Hunos at 50 pounds per build. The old in Peris vivania or eckonice at 62 pounds, in Kentucky and Illinois at 55 pounds per build.

## Area and Weight of Tile

The following table hows the ar and the second of the different sized tile.

Size.	Weight	150	× Z *	Weight.	Area.
3 in. 31 4 5 6	5 lb ea.	57 - 1 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7 104 8 0 9 0 10 0 12 0	15 lbs ea. 15 21 24 28	31 1 ln. 511 67 801 113

## The Carrying Capacity of Tile

GALLONS PER MINUTE

	Fall per 100 Feet.									
Size of Tile	1 in_	3 in.	6 in	9 in.	12 in	24 In	o in.			
3-inch 4-inch	27	23 47	3.2 60	40 51	46 93	131	70			
6-inch 8-inch	7.5 1.5.3	120	375	460	23A 8_9	750	450			
9 inch 10-inch	205	355	655	503	711	1000	1013			
12-inch	422	730	1033	1.773	1458	.070	255			

A large till will carry more water according to its size that a small one. This is because there is less surface on the line de of the large tile compared with the size of stream, and there are less from those water will flow through a straight tile than a crooked on having the same dam ter.

EXAMPLE: A nine-inch tile at 6 inches fall to the 100 feet will flow 593 gals, per minute.

#### How to Use the Hog and Cattle Table

CATTLE.

What will be the cost of 1,170 lbs, of cattle at \$4 25 per hundredweight?

Hogs.

What will be the cost of 2,750 lbs. of hogs at \$3.75 per nundredweight?

$$2,700 @ $3.75 = $101.25$$
  
 $50 @ 3.75 = 1.88$   
Answer—\$103.13

The middle column gives the number of pounds and the top of each column the price per pound or hundred weight.

5c	10	2.50	2.75	3.00	3.25	Weight	3.50	8.75	4.00	4.25	4.50
.00	.00	.08	.08	.09	.10	3	.11	.11	.12	.13	.14
.00	.01	.13	.14	.15	.16	10	.18	.19	.20	.21	.23
01	.02	.38	.41	.45	.49	15	.53	.56	.60	.84	.68
.01	.02	.50	.55	.60	.65	20	.70	.75	.80	.85	.90
.01	.03	.63	.69	.75	.81	30	1.06	1.13	1.00	1.06	1.13
.02	.04	.88	.96	1.05	1.14	35	1.23	1.31	1.40	1.49	1.58
.02	.04	1.00	1.10	1.20	1.30	40	1.40	1.50	1.60	1.70	1.80
.02	.05	1.13 1.25	1.24	1.85 1.50	1.63	45	1.58	1.69	1.80 2.00	1.91 2.13	2.03
.08	.03	1.33	1.51	1.65	1.79	55	1.93	2.06	2.20	2.34	2.48
.03	.00	1.50	1.65	1.50	1.95	60	2.10	2.25	2.40	2.56	2.70
.03	.07	1.63	1.79	1.95 2.10	2.11	65	2.28	2.44	2.60	2.76	2.93
.04	.08	1.88	2.03	2.25	2.44	75	2.63	2.81	3.00	3.19	3.33
.04	.08	2.00	2.20	2.40	2 60	80	2.80	3.00	8.20	3.40	3.60
.04	.09	2.13	2.34	2.55	2.76	85 90	2.98	3.19	8 40	3.61	3.83
.05	.10	2.38	2.61	2.85	8.08	95	3.33	8.56	3.80	4.04	4 28
.06	10	2.50	2.75	8.00	8 25	100	3 50	8.75	4.00	4.25	4.50
.10	.20	5.00 7.50	5 50 8.25	9.00	6.50 9.75	200 300	7.00	7.50	8.00	8.50	9.00
.21)	.40	10.00	11.00	12.00	13.00)	400	14.00	15.00	16.00	17.00	18.00
.25	.80	12.50	13.75	15.00	16.25	500	17.50	18.75	20.00	21.25	22.50
.35	.70	15.00	16.50	18.00	19.50 22.75	700	21.00	26.25	24.00	25.50 29.75	31.50
.40	.80	20.00	21.00	24.00	26.00	800	28.00	30.00	32.00	34.00	36.00
.45	.90	22.50	24.75	27.00	29.25	1000	31.50	83.75	36,00	38.25 42.50	45.00
365	1.00	25.0) 27.50	27.50	30.00	32.50 35.75	1100	35.00 38.50	37.50 41.25	44.00	46.75	49.50
.00	1.20	30,00	83.(1)	36.00	39,00	1200	42.00	45.00	48,00	51.00	54.00
.65	1.30	32.50	35.75	89.00	43.25	1300 1400	45.50	48.75 52.50	52.00 53.00	55.25 59.50	58.50 63.00
.75	1.40	35.00 87.50	89.50	42.00	48.75	1500	62.50	56.25	60.00	63.75	67.50
.80	1.60	40.00	44.00	48.00	53.00	1600	56.00	60.00	64.00	68.00	72.00
	1.70	42.50	46.75	51.00	55.25	1800	50.50	63.75	68.00	72.25 76.50	76.50
	1.00	45.00 47.50	52.25	54.00	61.15	1900	65.50	71,25	76,00	80.75	85.50
1.00	2.00	50.00	65.00	60.00	65.00	2000	70.00	75.00	80.00	85.00	100.00
	2.10	52.50	67.75	63.00	68.25	$\frac{2100}{2200}$	73.50	78.75	88.00	89.25	99.00
1.15		55.00 57.50	63.25	69.00	71.50	2300	80.50	86.25	92.00		198.50
1.30	2.40	(1).(1)	66.00	72.00	78.00	2400	84.00	90.00	843:00	102.00	108.00
1.25	$\frac{2.50}{2.60}$	62.50	68.75	75.00	81.25 84.50	2500 2600	87.50 91.00		100,00		112.50
	2.70	67.50	74.25	81.00	87.75	2700			108.60		121.50
1,40	3.80	70.00	77.00	84.00	91.00	2800			112.00		126.00
	2.90	72.50	79.75	87.00 90.09	94.25 97.50	3000	101.50				
	3,10	77.50	85,25		100,75	3100	108.50				
1.60	3.20	80.00	98.004	69.60	104.00	3200	112.00	120.00	128.00	130.00	144 00
	3.30	82.50 85.00	90.75, 93.50	99.00	107.25	3300	115.50	123.75	138.00	140.25	148.50 153.00
	3.50	87.50		105.00		3500					157.50
1.80	3.60	90.00	99.00	108.00	117.00	3600	128.00	135.00	144.00	153.00	162.00
	3.70			111.00 114.00		3700	129,50		148.00 152.00		166.50
	3.90		107.25		126.75	3900	138.50	148.25	156.00	105.75	175.50
		100.00	110.00	120.00	130.00	4000	140.00	150.00	160.00	170.00	180.00
			112.75 115.50			4100 4200	143.50				
2.15	4.30	107.50	119.25	129.00	139.75	4300	150.50	161.25	172.00	182.75	193.50
2.30	4.40	110.00	121.00	132.00	143.00	4400	154.00	165.00	176.00	187.00	128.00
7.23	4.50	112.50	123.75	135.00	145.25	4500	157.50	108.75	190100	191.25	aug.50

#### How to Find the Number of Bushels of Grain in a Bin or Box

Rule.—Multipy the length in feet by the height in feet, and then again by the breadth in feet, and then again by 8, and cut off the right hand figure. The last result will be the number of bushels.

Example — How many bushels in a bin 12 feet long, 8 feet wide and 4 feet high?

Solution -12×8×1×8=307.2 bushels -Answer

## To Find the Contents of a Wagon Box

A common wagon box is a little more than ten feet long and three feet wide, and will hold about two bushels for every luch in depth.

Rule.—Multiply the depth of the wagon box in inches by 2, and you have the number of bushels

If the wagon box is 11 feet long multiply the depth in inches by 2, and add one tenth of the number of bushels to itself.

Example — How many bushels of grain will a wagon box hold, 20 inches deep and 10 feet long?

Solution -20×2=40, -Answer

N.B.-A bushel to the inch is calculated for corn on the cob.

## Explanations of Grain Tables

The figures in heavy type represent the weight of the load, the number of bushels and pounds over are found at the right under the kind of grain.

Example.—How many bushels in a load of wheat weighing 1490 pounds? Run down the first, or weight column, to 1490 and find opposite under "wheat" 24 bushels and 50 pounds.

Table Showing the Number of Bushels and odd Pounds in a Load of Grain.

b %	Oats.	Corn, Rye	Wheat	Ear Corn	Ear Corn	Barley.
28.2	32 Lbs.	56 lbs.	Bus.   Lbs.	70 Lbs.	75 Lbs.	18 Lbs.
1010	8us.   1.bs. 31 18	18 02	16 50	14 30	13 85	21 02
1020	31 28	18 12	17 00	14 40	13 45	21 12
1030	32 06	18 22	17 10	14 50	13 55	21 22
1040	32 16	18 32	17 20	14 60	13 65	21   32
1050	32 26	18 42	17 30	15 00	14 00	21 42
1060	33 04	18 52	17 40	15 10	14 10	22 04
1070	33 14	19 06	17 50	15 20	14 20	22 14
1080	33 24	19 16	18 00	15 30	14 30	22 24
1090	34 02	19 26	18 10	15 40	14 40	22 34
1100	34 12	19 36	18 20	15 50	14 50	22 44
1110	31 22	19 46	18 30	15 60	14 60	23 06
1120	35 00	20 00	18 40	16 00	14 70	23 16
1130	35 10	20 10	18 30	16 10	15 05	23   26
1140	35 20	20 20	19 00	16 20	15 15	23 36
1150	35 30	20 30	19 10	16 30	15 25	23 46
1160	36 08	20 40	19 20	16 40	15 35	24 08
1170	36 18	20 50	19 30	16 50	15 45	24 18
1180	36 28	21 04	19 40	16 60	15 55	24 28
1190	37 06	21 14	19 50	17 00	15 65	24 28
1200	37 16	21 24	20 00	17 10	16 00	25 00 25 10
1210	37 26	21 31	20 10	17 20	16 10	
1220	38 04	21 44	20 20	17 30	16 20	
1230	38 14	21 54	20   30	17 40	16 30	25 30 25 40
1240	38 24	22 08	20 40	17 50	16 40	25 40 26 03
1250	39 02	22 18	20   50	17 60	16 50	26 12
1260	39 12	22 28	21 00	18 00	16 60 16 70	26 22
1270		22 38	21 10	18 10	16 70	26 32
1280		22 48	21 20	18 20	17 15	26 42
1290		23 03	21 30	18 30	17 25	27 04
1300		23 12	21 40	18 40	17 35	27 14
1310		23 22	21 50	18 50 18 60	17 45	27 24
1320		23 32	22 00		17 55	27 34
1330		23 42	22 10 22 20	19 00	17 65	27 44
1340		23 52	22 20 20 22 30	19 20	18 00	28 06
1350		24 06 24 16	22 40	19 30	18 10	28 16
1360		24 16 24 26	22 50	19 40	18 20	28 20
1370		24   36	23 00	19 50	18 30	28 36
1380		24 46	23 10	19 60	18 40	28 46
1390		25 00	23 20	20 00	18 50	29 08
1400		25 10	23 30	20 10	18 60	29 18
1410		25 20	23 40	20 20	18 70	29 28
1420		25 30	23 50	20 30	19 05	29 38
144(		25 40	24 00	20 40	19 15	30 00
1440		25 50	24 10	20 50	19 25	30 10
1460		26 04	24 20	20 60	19 35	30 20
1470		26 14	24 30	21 00	19 45	30 30
1480		26 24	24 40	21 10	19 55	80 40
1490		26 84	24 50	21 20	19 65	31 02
1500		26 44	25 00	21 30	20 00	31 12

Table Showing the Number of Bushels and odd Pounds in a Load of Grain-Continued.

-		0 70	Van Camp	Barley.		
9 4 5	32 lbs.	Corn, Rye 56 Lbs.	Wheat.	TO Lbs.	75 Lbs.	48 Lbs.
7 7 7	Bue. Che.	Bos.   Lbs.	Bue.   Lbe.	Bus. La	B · L ·	Beer Loa
1510	47 06	28 54	25 10	21 40	20 10	31 23
1520	47 16	27 08	25 20	21 (50)	20 20	81 . 3
1530	47 26	27 18	25   30	21 (0)	20 30	31 13
1540	48 04	27 28	25 40	55 (0)	20 40	52 01
1550	48 14	27 38	25 50	23 10	20 50	32 14
1560	48 24	27 48	26 00	55 50	20 00	12 24
1570	49 02	28 03	26 10	22 30	20 70	32 34
1580	49 12	28 12	26 20	22 40	21 05	82 44
1590	49 22	28 22	26 30	0.2 50	21 15	23 (8)
1600	50 00	28 32	26 40	12 60	21 25	33 10
1610	50 10	28 42	26 50	23 00	21 85	83 98
1620	50 20	28 52	27 00	23 10	21 45	23 16
1630	50 30	29 06	27 10	23 20	21 55	3 46
1640	51 08	29 16	27 20	23 30	21 65	74 08
1650	51 18	29 26	27 30	23 40	22 00	34 13
1660	51 28	29 33	27 40	23 50	22 10	34 24
1670	52 06	29 46	27 50	23 60	22 20	31 3
1680	52 16	30 00	25 00	24 00	22 00	85 00
1690	52 26	30 10	28 10	24 10	22 40	35 10
1700	53 04	30 20	28 20	24 20	22 50	35 30
1710	53 14	30 30	28 30	24 30	22 60	85 80
1720	53 24	30 40	24 40	24 40	22 70	35 40
1730	54 02	30 50	28 50	24 50	23 05	38 02
1740	54 12	31 04	29 00	24 60	23 15	36 12
1750	54 22	31 14	29 10	25 00	23 25	36 22
1760	55 00	31 24	29 20	25 10	23 35	36 32
1770	55 10	31 34	29 30	25 20	23 45	36 42
1780	55 20	31 44	29 40	25 30	23 55	87 04
1790	55 30	31 54	29 50	25 40	23 65	37 14
1800	56 08	32 08	30 00	25 50	24 00	37 24
1810	56 18	32 18	30 10	25 60	24 10	37 34
1820	56 28	82 28	30 20	26 00	24 20 24 30	37 44
1830	57 08	32 38	30 30	26 10		35 03
1840	57 16	32 48	30 40	28 20		38 16
1850	57 26	33 02	80 50	26 30	1000	38 26 38 36
1860	58 04	33 12	31 00	26 40		38 46
1870		33 22	31 10	26 50		
1880	58 24	33 32	31   20	26 60 27 00		39   08   39   18
1890	69 02	33 42			25 15 25 25	39 28
1900	59 12	33 52	31 40		25 35	39 38
1910 1920	59 22 60 00	34 06 34 16	31   50 82   00	27 20 27 30	25 45	40 00
1930				27 40	25 55	40 10
1940	60 10		32 10 32 20	27 50	25 65	40 20
1950	60 30	34 36 34 46	32 30	27 60	26 00	40 30
1960		35 00	32 40	28 00	26 10	40 40
1970		35 10	32 50	28 10	26 20	41 02
1980		35 20	33 00	28 20	26 30	41 12
1990		35 30	33 10	28 30	26 40	41 22
2000		35 40	33 20	28 40	26 50	41 32
2000	1 02 110	1 00 40	00 20	1 20140	20100	41 00

Table Showing the Number of Bushels and odd Pounds in a Load of Grain—Continued.

1. =	Oats.	Corn, Rye	Wheat	Ear Corn	Ear Corn	Darlan
1 2 2 2	32 lbs	56 Lm.	60 ths.	70 Lbs.	75 Lbs.	Barley.
2010	Bue.   Lbs.	Bur. Lba.	Bus.   Lbs.	Bue, Lba.	Bue.   Lbe	Boo.   Lbs.
2010	62 26	35 50	33 30	28 50	26 60	41 42
2020	63 04	36 04	33 40	28 60	26 70	42 04
	63 14	36 14	33 50	29 00	27 05	42 14
2040	63 24	36 24	34 00	29 10	27 15	42 24
$2050 \\ 2060$	64 02	36 34	34 10	29 20	27 25	42 34
2070	64 12	36 44 36 54	34 20 34 30	29 30 29 40	27 85 27 45	42 44
2080						43 06
2090	65 00	37 08	34 40	29 50 29 60		43 16
2100	65 10	37 18 37 28	34 50 35 00	30 00	27 65 28 00	43 26
2110	65 20			30 10	10000	43 36
2120	65 30		35 10 35 20	30 20	28 10 28 20	43 46
2130	66 08	37 48 02	35 30	30 30	28 30	44 08 44 18
2140	66 28	38 12	35 40	30 40	28 40	44 28
2150	67 06	38 22	35 50	30 50	28 50	44 38
2160	67 16	38 32	36 00	30 60	28 60	45 00
2170	67 26	38 42	36 10	31 00	28 70	45 10
2180	68 04	38 52	36 20	31 10	29 05	45 20
2190	68 14	39 06	36 30	31 20	29 15	45 30
2200	68 24	39 16	36 40	31 30	29 25	45 40
2210	69 02	39 26	36 50	31 40	29 35	46 02
2220	69 12	39 36	37 00	31 50	29 45	46 12
2230	69 22	39 46	37 10	31 60	29 55	46 22
2240	70 00	40 00	37 20	32 00	29 65	46 32
2250	70 10	40 10	37 30	32 10	30 00	46 42
2260	70 20	40 20	37 40	32 20	30 10	47 04
2270	70 30	40 30	37 50	32 30	30 20	47 14
2280	71 08	40 40	38 00	32 40	30 30	47 24
2290	71 18	40 50	38 10	32 50	30 40	47 34
2300	71 28	41 04	38 20	32 60	30 50	47 44
2310	72 06	41 14	38 30	33 00	30 60	48 06
2320	72 10	41 24	38 40	33 10	30 70	48 16
2330	72 20	41 34	38 50	33 20	31 05	48 26
2340	73 04	41 44	39 00	33 30	31 15	48 36
2350	73 14	41 54	39 10	33 40	31 25	48 46
2360	73 24	42 08	39 20	33 50	31 35	49 08
2370	74 02	42 18	39 30	33 60	31 45	49 18
2350	74 12	42 28	39 40	34 00	31 55	49 28
2390	74 22	42 38	39 50	34 10	31 65	49 38
2400	73 00	42 48	40 00	34 20	32 00	50 00
2410	75 10	43 02	40 10	34   30	32 10	50 10
2420	75 20	43 12	40 20	34 40	32 20	50 20
2430	75 30	43 22	40 30	34 50	32 30	50 30
2440	76 08	43 32	40 40	34 60	32 40	50 40
2450	76 18	43 42	40 50	35 00	32 50	51 02
2460	76 28	43 53	41 00	35 10	32 60	61 12
2470	77 06	44 06	41 10	35 20	32 70	51 22
2480	77 16	44 16	41 20	35   30	33 03	51 32
2490	77 26	44 26	41 30	35 40	83 15	51 42
2500	78 04	44 36	41 40	35 50	83 25	52 04

Table Showing the Number of Bushels and odd Pounds in a Load of Grain—Continued.

0		. C VI	1111	12 0-	W C.	Waster 0
NA T	32 the	56 Lbs.	Wheat.	TO Lbs	To Lha	Barley.
	But I be.	Bue   l.ba	Bas.   Lbs	But   be	Bos La	Box Lbo.
2510	78 11,	44 46	41 50	35 60	63 35	53 14
2520	78 24	45 00	42 00	38 00	33 15	52 34
2530	79 03	45 10	42 10	3 ()	(4)	62 34
2540	79 12	45 20	45 50	(12)	33 65	52 44
2550	79 22	45 30	42 (30)	. ; ( )	.14 (30)	53 Ori
2560	80 00	45 40	42 40	36 40	34 10	5- 16
2570	80 10	45 50	42 30	3 (50)	(1 2)	10 215
2580	80 20	46 04	44 00	1 (a)	140	51 6
2590	80 30	46 14	43 10	47 ()	14 40	53 46
2600	81 08	46 21	43 (5)	37 10	74 50	54 08
2610	81 18	46 34	4.3 (1)	37 20	11 60	64 18
2620	81 28	46 44	43 (0)	37 . )	4 70	54 28
2630	82 06	46 54	43 50	77 (1)	65 (15	54 38
2640	82 16	47 08	44 00	37 11	35 15	55 00
2650	82 26	47, 18	41 10	.7 ()	120 3	55 10
2660	83 04	47 28	44 20	(4) (6)	ເວີ ເວັ	55 20
2670	83 14	47 38	14 30	38 10	35 45	55 30
2680	81 24	47 48	4.4 (60)	324 50	35 35	85 40
2690	84 02	49 02	44 50	38 30	35 (5	56 02
2700	84 12	48 12	45 00	38 40	86 00	56 13
2710	84 23	48 22	45 10	38 30	38 10	56 22
2720	85 00	48 32	45 20	38 60	30 20	56 33 1
2730	85 10	48 42	45 30	89 00	36 30	543 42
2740	85 20	48 52	45 40	39 10	86 40	67 04
2750	85 30	49 06	45 50	39 20	38 50	67 14
2760	86 08	49 16	46 00	39 30	38 60	57 34
2770	86 18	49 26	46 10	39 40	36 70	57 34
2780	86 28	49 36	46 20	39 50	37 05	57 44
2790	87 06	49 48	46 30	39 60	37 15	58 00
2800	87 16	50 00	46 40	40 00	37 25	58 16
2810	87 26	50 10	46 50	40 10	87 35	58 20
2820	58 04	50 20	47 00	40 20	37 45	58 36
2830	88 14	50 30	47 10	40 30	37 55	58 46
2840	88 34	50 40	47 20	40 40	37 65	59 08
2850	80 02	50 50	47 30	10 50	39 00	59 18
2860	89 12	51 04	47 40	40 60	38, 10	59 28
2870	89 22	51 14	47 50	41 00	35 20	59 38
2880	90 00	51 21	48 00	41 10	38 30	60 00
2890	90:10	51 31	48,10	41 20	38 40	60 10
2900	90,20	51 44	48 20	41 30	38 50	60 20
2910	90 30	51 54	48 30	41 40	38 60	60 30
2920	91 08	52 08	48 40	41 50	38 70	60 40
2930	91 18	52 18	48 50	41 60	39 05	61 02
2940	91 28	52 28	49 00	42 00	39 15	61 12
2950	92 06	52 38	49 10	42 10	39 25	61 22
2960	92 16	52 49	49 20	42 20	39 35	61 32
2970	92 26	53 02	49 30	42 30	39 45	61 42
2980	93 04	53 12	49 40	42 40	39 55	R2 04
2990	93 14	53 22	49 50	42 50	39 65	62 14
8000	93 24	53 32	50 00	42 60	40 00	62 24

Table Showing the Number of Bushels and odd Pounds in a Load of Grain Continued.

		# TO	STEP	Ear Corn	For Corni	Barley.
南京日	0 ats. 32 Lbs.	Se Lbs.	Wheat 60 the.	7() Lbs.	75 lbs.	48 lbs.
- P	Sus.   Lba.	Bus.   Lbs.	Sue.   Lbe.	Bus.   Lbs.	80s. Lbs. 40 10	62 34
3010	94 02	53 42	50 10	43 00 43 10	40 20	62 44
.3020	94 12	53 52	50 20 50 30	43 20	40 30	63 06
3030	94 22	54 06 54 16	50 40	43 30	40 40	63 16
3040	95 00	54 16 54 26	30 30	43 40	40 50	63 26
3050	95 10 95 20	54 36	51 00	43 50	40 60	63 36
3060	95 30	54 48	51 10	43 60	40 70	63 46
3080	96 08	55 00	51 20	44 00	41 05	64 08
3090	96 18	55 10	51 30	44 10	41 15	64 18
8100	96 28	55 20	51 40	44 20	41 25	64 28
3110	97 08	55 30	51 50	44 30	41 35	64 38
3120	97 16	55 40	52 00	44 40	41 45	65 00
3130	97 26	55 50	52 10	44 50	41 55	65 10
3140	98 04	56 04	52 20	44 60	41 65	65 20
3150	98 14	56 14	52 30	45 00	42 00	65 30 65 40
3160	98 24	56 24	52 40	45 10	42 10 42 20	66 02
3170	09 03	56 34	59 50	45 20 45 30	42 30	66 12
3180	99 12	56 44	53 00	45 40	42 40	66 22
3190	99 22	56 54 57 08	53 10	45 50	42 50	66 32
8200	100 00	57 08	53 30	45 60	42 60	66 42
$\begin{vmatrix} 3210 \\ 3220 \end{vmatrix}$	100 10 100 20	57 28	53 40	48 00	42 70	67 04
3230	100 30	57 38	53 50	46 10	43 05	67 14
3240	101 08	57 49	54 00	46 20	43 15	67 24
3250	101 18	58 02	64 10	46 30	43 25	67 34
3260	101 28	58 12	54 20	46 40	43 35	67 44
3270	102 06	58 22	54 30	46 50	43 45	68 00
3280	02 16	58 32	54 40	46 60	43 55	68 16
3290	102 26	58 42	54 50	47 00	43 65	68   26   68   36
3::00	103 04	58 52	55 00	47 10	44 10	68 46
3310	103 14	59 06	55 10	47 20 47 30	44 20	69 08
3320	103 24	59 16	55 20 55 30	47 30 47 40	44 30	69 18
3330	104 02	59 26 59 36	55 40	47 50	44 40	69 28
3340	104 12	59 46	55 50	47 60	44 50	69 38
3350 3360	105 00	60 00	56 00	48 00	44 60	70 00
3370	105 10	60 10	56 10	48 10	44 70	70 10
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3390	105 30	60 30	56 30	48 30	45 15	70 30
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3420	106 28	61 04	57 00	48 60	45 45 45	71 12 71 22
3430	107 08	61 14	57 10	49 00	45 65	71 32
3440	107 16	61 24	57 20	49 10	46 00	71 42
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#### FARMER'S CLUB

In a farmer's club, which has for its object social intercourse and the acquisition of knowledge, there not be few arbitrary rules of order enforced, but, instead, the discussions may be more or less conversational. But, as all but remains facilitated by good regulations, the officers of the club cash to be armed with by-laws, and empowered to enforce their provisions whenever necessary.

#### Constitution

ART. 1—The association shall to A. Garta a Far to Clb Its object hall to produce a key long for the line and the control of the produce and the control of the results by the results as a latter family.

And 2. The non-level theory are the confirmed to mail those and confirm that regiment, and there is a second of the by the electric committee, all of we make the particle and the property of nonthly into the transity.

ART 3 In more of the Club, and report at the award be really and the second of the control of th

ART. 4.—The meeting of the Club shall take place on the first Turnday of each month; the meeting in January being known as the "Annual Meeting."

ART 5.—This Constitution may be amonded by a vote of two-thirds of the members present at any regular meeting, notice having been given at the preceding regular meeting.



# FACTS AND FIGURES FOR BUSINESS MEN

#### HOW TO BECOME WEALTHY

The way to wealth, says Franklin, is as plain as the way to market. It depends chiefly on two words—industry and frugality.

It is not what a man earns, but what he saves that makes him rich.

From the following table it appears that if a person saves 21 cents per day from the time he is twenty-one till he is seventy, the total, with compound interest, will amount to \$2,000, and a daily saving of 271 cents reaches the important sum of \$29,000. Save all you can in a prudent and systematic manner for a time of possible want, but act justly by paying your debts, and liberally by assisting those in need, and helping in a good cause.

# A Table of Daily Savings at Compound Interest

Cents per Day.	Per Year	In Ten Year	Fifty Years.
2	\$ 10	\$ 100	\$ 2,900
5	20		5 500
11	41)	1.0	11,000
27}	100	1 0	29 000
55	200	2 (10)	14,000
		8 = 10	116,000
1 37	500	6,500	145,000

# BIG SALARIES PAID TO BUSINESS MEN

Ten railroad presidents in the United States draw salaries aggregating \$455,000 per annum, an average of \$48,500 for each midvidual. Few of these men are capitalists, but each one wields a laboring our in railway management and takes great responsibilities off the shoulders of the capitalists who employ him. The list is as follows:

A. J. Cassatt, Pennsylvania railroad	\$75,000
George F. Bast, Reading company.	50,000
L. F. Loree Rock Islan I	50_000
James J. Hill, Great Northern	50,000
William H. Newman, New York Central syst m	
Samuel Spencer, Southern railway	50 000
F. D. Underwood, Frie system	40,000
E. B. Thomas, Lenigh Valley	40,000
Marvin Hughitt, Ch. ago & Northwestern	40 000
E. P. Ripley, Atchison system	40,000
	_
Total	\$455,000

In most cases these large salaries include compensation for services rendered as the executive head of several different companies, all, however, belonging to one system.

## TEACH BUSINESS WAYS TO WIVES AND DAUGHTERS

Every business man who has a wife and daughters should instruct them in the essential principles of business, so that if illness should prevent him for a time from giving active attention to his affairs, they may convey to him accurate knowledge



TEACHING CHILDREN BUSINESS

of the condition of his business, or, in case of his death, may aid in the proper settlement of his estate.

Wives and daughters of business men should seek to acquaint themselves with the laws and conduct of actual business, and become familiar with the forms used in the transaction of commercial affairs. Even if they are not called upon to take actual charge of business matters, still this knowledge will be of service, as it will enable them to give valuable aid and helpful counsel to husband or father.

And let no man think lightly of the opinion of his wife in times of difficulty. Women generally have more acuteness of perception than men; and in moments of peril, or in circumstances that involve a crisis or turning-point in life, they have usually more resolution and greater instinctive judgment.

#### HOW TO TEACH BUSINESS TO CHILDREN

Children will learn with pleasure from the lips of parents what they think drudgery to learn from books. This fact should be taken early advantage of to familiarize sons and daughters with business customs, and to induce them to form business habits.

Let them learn from experience how money is earned by industry and saved by economy.

That they may form a habit of doing business systematically, procure for them a little account book, and have them keep an itemized account of all money received and paid out. This should show how each sum entered was earned, and how each sum paid out was expended. This habit, once acquired, will become a second nature and remain with them for life.

System is absolutely essential to business success, and parents should see to it that their children do thing; systematically. "Successful men," says Carlyle, "possess the great gift of a methodical, well-balanced, arranging mind; they are men who cannot work in disorder, but will have things straight, and know all the details, which enables them so to arrange the machinery of their affairs, that they are fully cognizant alike of its strength, weakness, and capacity, and they judiciously and discreetly exercise all its power to the uttermost."

#### WHEN NAME SHOULD BE SIGNED IN FULL

Persons should always sign their full name to deeds, mortgages, notes, and receipts; for, although one Christian name only is recognized in law, yet the writing out in full of one's "middle" name, as well as the first name, tends to prevent the name being mistaken for that of some other individual having similar initials. For instance, instead of John A. Jures, write John Albert Jones

## HOW A MARRIED WOMAN SHOULD SIGN HER NAME

A married woman should sign her own Clricken name, is tend of that of her hudand, to leval and become from example, Mr., Smith should sign Mary Ellen South in text of Mrs. John Smith.

# HOW SIGNATURE OF PERSON WHO CANNOT WRITE SHOULD BE SIGNED

When a person who cannot write it required to sign a document, it should be done by having him make his mark. The signature should always be with a l. Example:

Henry X Yates, mark

Witness: William Henen



PENSIONS



PENSIONS

The Pension Bureau is the largest bureau of the government, it is presided over by the Commissioner of Pensions, who attends to all matters concerning pensions, and law affecting them; to their payment, and the detection and prosecution of attempts at fraud in claims for pensions.

Pension Agencies were abolished by Act of August 17, 1912, and since January 31, 1913 the payment of all pensions has been

made by a Disbursing Clerk in the Bureau of Fensions.

Age and Disability Pensions—Act of May 11, 1912 provides as follows: Any person who served ninety days or more in the military or naval service of the United States, during the late civil war, and who has been honorably discharged therefrom, and has reached the age of sixty-two years or over, on making proof of such facts is entitled to receive a pen ion as follows: Age sixty-two years—For a service of ninety days, \$13.00 per month; 6 months, \$13.50; 1 year, \$14.00; 1½ years, \$14.50; 2 years, \$15.00; 2½ years, \$15.50, and 3 years or more, \$16.00. Age 66 years—For a service of 90 days, \$15.00 per month; 6 months, \$15.50; 1 year, \$16.00; 1½ years, 16.50; 2 years, \$17.00; 2½ years, \$18.00, and 3 years or more, \$19.00. Age 70 ye rs—For a service of 90 days, \$18.00 per month; 6 months, \$19.00; 1½ years, \$21.00; 1½ years, \$24.00; 3 years or more, \$25.00. Age 75 years—For a service of 90 days, \$21.00 per month; 6 months, \$22.50; 1 year, \$24.00; 1½ years, \$27.00; 2 years or more, \$30.00. Any such pension shall commence from the date of filing the application in the Bureau of Pensions.

Any person who served sixty days or more in the war with Mexico, and who received an honorable discharge, is entitled to \$30.00 per month. Any person who was wounded in battle or in line of duty in the civil war, and is now until for manual labor by reason thereof, or who from disease or other cause incurred in line of duty resulting in his disability, is now unable to perform manual labor, is entitled to \$30.00 per month.

How to Obtain a Pension.—To obtain a pension the applicant must file a claim with the Commissioner of Pensions, Washington, D. C. In a claim by the soldier he should at forth all his military or naval service, giving dates of cultiment and discharge. He should also set forth the name or nature of all disabilities for which pension is claimed, giving the time when, the place where and the circumstances under which each was contracted. The prime requirement to table ha claim under the act of July 14, 1862, usually termed the general law, is to show that the disability for which pension is claimed had its origin while in the service and line of duty; that it has existed as a disabling cause from date of discharge, and now exists in a degree pensionable under the law. In a claim under the act of June 27, 1590, the essential rquirements are: A service of ninety days or more, an honorable discharge therefrom and proof that the disability for which pension is claimed is not due to claimant's own vicious habits, but it need not necessarily be of service origin.

Widow's Claim.-In a widow's claim it is necessary to show her legal marriage to the soldier, the date of his death, and, under the general law, that it was due to some cause of service origin. She must also show that she has remained his widow. If there are children of the soldier under sixteen years of age at the date of his death, their names should be given and the date of birth of each clearly shown. If any have died, the date should be proved. In a widow's claim under the act of June 27, 1890, the requirement as to service is the same as under an invalid claim, and in addition thereto she must show a legal marriage to the soldier prior to the passage of the act, the fact of soldier's death (but it need not be shown to be due to service). her continued widowhood and that she is without other means of support than her daily labor. A minor child's title to pension accrues only on the death or remarriage of the widow, which fact must be shown, in addition to the requirements in widow? claim.

Dependent Mother.—A dependent mother must show her relationship to the soldier, his celibacy, that he contributed to

her support, that his death was due to some cause of service origin, the date of his death, and, under the general law, that she was dependent upon him at the date of his death. Under the act of June 27, 1890, it is only necessary to show dependence at date of filing claim and since then. A dependent father must show relationship by legal marriage to soldier's mother, the date of soldier's birth and of the mother's death, in addition to the requirements in the mother's claim.

# ANARCHISTS NOT ELIGIBLE TO CITIZENSHIP

EXCLUDING ANARCHISTS.—The act of March 3, 1903 (taking effect June 1, 1903), imposed the forther restrictions on the naturalization of aliens: No person who disbelieve in or who is opposed to all organized government, or who is a member of or affiliated with any organization entertailing and teaching such disbelief in or opposition to all organized government, or who advocates or teaches the duty, necessity, or prepriety of the unital field a aulting or killing of any officer or officers, either of specific field, pleads or of officers generally, of the government of the United States or of any other organized government, because of his or their of states or of any other organized any of the provisions of this act, shall be naturalized or be made a citizen of the United States.

DUTY OF COURTS. All courts and tribunals and all judge and officers thereof having jurisdiction of natural ration processings or dutheto perform in regard thereto shall, on the final application for naturalization, toake careful inquiry into such matters, and before—using the final order or certificate of naturalization cause to be entered of record the all davit of the applicant and of his witness of areas applicable, recting and reaffining the truth of every material fact requeste for naturalization. All final orders and certificates of naturalization hereafter made shall show on the face peculcally that said affidiavits were duly made and recorded, and all orders and certificates that fall to show such facts shall be rull and youd.

PENALTY FOR VIOLATION.—Any person who purpedly procures naturalization in violation of the provisions of this section shall be fixed not more than five thousand dollars, or shall be improved not leath note nor more than ten years, or both, and the court in which such conviction is had shall thereupon adjudge and declare the order or decree and all certificates a limiting such person to citizenship null and void. Jurisdiction is hereby conferred on the courts having jurisdiction of the trial of such effect to make such adjudication.

Any person who knowingly aids, advises or encourages any lich person to apply for or to the tre naturalization or to the tre primit by papers declaring an intent to become a citizen of the United State, or who in any naturalization proceeding knowingly procures or give falle to timeny as to any material fact, or who knowingly makes an affidavit fall a to any material fact required to be proved in such proveding, shall be fixed not more than five thousand dollars, or imprisoned not be sthan one for more than ten years, or both.

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\$29,480,943,355.27

# Cost of the United States Military Establishment from 1790 to 1919

In his book, "Our Military History," Maj. Gen. Leonard Wood, commenting upon the cost of our military establishment, cites the following table from Muidekoper's statement to the Military Affairs Committee of the United States Senate:

Cost	5,669,930.6	82,627,009.1	90,411,068.5	69,751,611.1	13,873,146.8	88,500,208.3	168,079,707,5	2,736,570,923,5	583,749,510.9	1,211,321,300.9	321,833,254.7	391,662,681.0	1,866,893,601.6	21,850,000,000,2
Condition			Minor Indian wars. Army averaging under 6,000 officers and men		1813-1815 . Peace. The Army Reduced	1816-1849 Including the Mexican War	Peace. The Army Reduced		Forces large on account of French occupation of Mexico		Including the Spanish-American War		Pence. The Army Reduced	The World War. Army, 4,080,000 men
Period	1791-1811	1812-1816	1817-1835	1836-1843	1813-1815	1816-1849	1850-1860	1861-1865	1866-1869	1870-1897	1898-1890	1900-1902	1902-1915	1915-1918

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nsions, from 1791 to 1915	Total cost since 1790.
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# BUILDING AND LOAN ASSOCIATIONS

These associations, usually incorporated, are established for the purpose of loaning money to their members upon real estate security. They make it their object to enable persons having a lot to borrow money thereon for the purpose of erecting a dwelling, allowing them to repay the money in installments amounting to little more than ordinary monthly rent. When the full amount is paid up the borrower becomes owner of the property.

Interest.—In considering the question of usury in a loan from a building association, payments made by the borrower as dues are not to be considered as interest, as such payments are made in order to acquire an interest in the property of the association and not for the use of mone.

Fines imposed for default in payment of due and interest cannot be collected by foreclosure of a mortgage given to so ure payment of an amount borrowed, unless this has been provided for by special agreement.

Liability of Stockholders.—A stockholder who actively or passively concurs in the management of the affairs of the activition must bear his share of the losses during his member hip resulting from such management.

# PRACTICAL LAW AND BUSI-NESS POINTERS

An Attorney's Powers.—An attorney at law has no implied authority to compound or give up any rights of his clients, or to consent to a judgment against his client.

Bank Checks.—The acceptance of a bank check by a creditor is not an absolute but a conditional payment of the drawer's debt.

A drawer of a bank check cannot countermand it so as to affect it in the hands of a holder in good faith.

Waiver of Homestead and Personal Property Exemption.—A waiver of a debtor's right to claim personal property as exempt from execution, when attempted to be made by an executory contract, is ineffectual and will not be enforced.

A clause in a promissory note expressly waiving the benefit of all laws exempting real or personal property from levy and sale, being contrary to public policy, is inoperative, and confers no right to levy upon and sell personal property which is exempt.

Distress for Rent.—The right of a landlord to issue a warrant authorizing a levy upon property of a tenant for the satisfaction of rent is looked upon in this country with disfavor, and in some of the States the right has been abolished.

When property temporarily in the possession of a tenant, but belonging to another, is taken under a distress against the tenant, the landlord will be liable to the owner for its value.

Wrongful Levy of Execution.—For wrongful levy on property, when an officer, under an execution, seizes the goods of some other person than the defendant in the execution, the owner may maintain an action, and trespass is the usual remedy of

the owner; but trover may be maintained in many cases and in some cases replevin will lie. The owner is not bound to resort to a trial of the right of property.

#### HUSBAND AND WIFE

Liability of Husband for Goods Sold to Wife.—When goods necessary and suitable to the position in life of a wife are sold to her, the jury will be justified in finding a verdict against the husband, as she acted as agent of the husband in contracting the debt.

Wife Living Apart from her Husband.—A husband is not liable for necessaries furnished his wife when she lives separate from him without his fault.

Separate Maintenance.—Where the wife leaves her husband without sufficient cause, she will not be entitled to a decree for a separate maintenance.

When she leaves him with his consent and on account of his ill treatment, he is liable for the expense of a separate maintenance.

#### FENCE LAWS

Fences are mostly regulated by statutes of the State where located. There are certain laws, however, that are applicable to them generally.

Legal Fence.—The laws of the several States provide what shall constitute a legal fence, which generally must be four feet high, with sufficient boards or wire, or both, to turn cattle.

Damages.—As a general rule all premises must be properly inclosed before damages can be recovered from the owner of trespassing stock for injury thereto.

Partition, or Division Fences.—The owners of adjacent tracts of land, in most of the States, are bound to erect and maintain one-half of a suitable fence along the line separating such tracts.

Repairs.—Each party is bound to look after his own part of the fence and keep it in good repair, and he must restrain his own stock from trespassing upon the lands of his neighbor.

Fence-Viewers, in some of the States, are provided for by statute to determine the just share of each party liable to maintain a partition fence, and suitable methods are provided for enforcing their awards.

Railroads are required by statute in many States to fence their tracts, and a failure to do so renders them liable for stock killed by reason of non-compliance with the statute.

Barb-wire fences must be so used and cared for as not to endanger persons and property, and the use of such fences imposes upon those who use them care real nably proportionate to their danger.

Railroads using barb-wire fences must use due diligence in running their trains, not only to avoid killing stock, but to avoid precipitating them by fright against a fence to be mangled or bruised.



THEY WENT TO LAW ABOUT THE LINE FEN. E. THE SUIT BEGINS

# TRESPASSING AND MISCHIEVOUS ANIMALS

Owners of domestic animals, such as cows, horses, sheep, hogs, poultry and dogs, must not permit them to stray upon the premises of others, or they will be liable in trespass for damages.

No Right to Kill or Injure.—But those upon whose premises such animals trespass are not justified in killing or lajuring the animals, no matter how aggravating or repeated the acts of trespass may be.

Remedy Provided.—The persons injured by such trespassing have their remedy in an action at law for damages, and there

are statutes providing for the taking up of such animals and holding them at the expense of their owner or impounding them as estrays.

Mischievous Animals.—The owner of a mischievous animal, known to him to be so, is responsible, when he permits him to go at large, for the damages he may do. And any one may justify the killing of a ferocious animal at large. The owner of such an animal may be indicted for a common nuisance.



THE SUIT ENDS AND THE LAWYER GETS BOTH COW AND MILK

If a person enters the barn or pasture of another, and is injured by a vicious horse or bull, it must be shown that the owner used all reasonable means in the care of his animals for the safety of his help and neighbors.

If a person enters upon the land of another, and is injured, he must show good cause for entering upon said land, and also prove ordinary caution, in going where cattle and horses were kept.

# RESPONSIBILITY OF OWNING A DOG

A person has a right to keep a dog to guard his premises, but not to put him unconfined at the entrance of his house; because a person coming there on a social or business errand may be injured by him. But if the dog is chained, and a visitor so incautiously goes near him that he is bitten, he has no right of action against the owner.

Liable for Damage.—Owners of dogs must keep them from straying upon the public highway, or they will be responsible for any damage caused by their annoyance of travelers, scaring of children, barking after teams, etc.

If a dog strays upon the premises and kills or injures any other domestic animal, its owner is hable for damages.



Dangerous Dogs running at large may lawfully be killed when their ferocity is known to their owner, or in self-defense; and when bitten by a rabid animal a dog may be lawfully killed by any one.

But a person is not justified in killing a dog without notice to the owner, merely because it barks around his house at night.

The owner of a vicious dog will not be held liable for the dog's biting a person unless it can be shown that the dog had previously exhibited a propensity to violence, and that the owner was acquainted with this propensity.

# BREACH OF TRUST

Breach of trust is the willful misappropriation of personal property by one who has been intrusted with its possession in confidence.

As Distinguished from Larceny.—The cases where personal property is taken by a person to whom it has been intrusted, and who converts it to his own use, present very nice discriminations of mere breaches of trust from larceny

If a person has property in goods, and a right to the possession of them, he cannot, in general, commit the crime of larceny in taking them; but if he only has the custody of them, and no property in them, he may steal them.

The courts generally lean toward construing the offense to be larceny, and not merely a breach of trust, where the party gains possession by some false pretense, with the original intent to steal.

A bailee who fraudulently converts the property intrusted to him to his own use is guilty not simply of a breach of trust, which is only a trespass, but of larceny, which is a crime.

#### LEGAL GIFTS

Definition.—A gift is the voluntary and gratuitous transfer or conveyance of the right and possession of property by one person to another.

Names of Parties.—The giver of the property is called the donor, the receiver the doner.

Who May Make a Gift.—Any person competent to transact ordinary business may give whatever he owns to any other person.

Delivery to the donee is essential to a gift, and there must also be actual acceptance. It must be an actual delivery, so far as the subject is capable of delivery. If the thing be not capable of actual delivery, there must be some act equivalent to it; something sufficient to work an immediate change in the control of the property.

Looked Upon with Suspicion.—The law generally looks with some degree of suspicion upon gifts, and they are usually considered to be fraudulent if creditors or others become sufferers thereby.

Retracting.—Where a gift has been executed by delivery of possession, it is not in the donor's power to retract it; but so long as the gift has not been completed by delivery of possession, it is not properly a gift, but a contract, and this a person cannot be compelled to perform but upon good and sufficient consideration.

A Gift Made in Prospect of Death may be revoked by the donor at any time during his life, though it be completed and executed by delivery and acceptance.

A Gift may be Annulled by the creditors of the donor, if he was insolvent at the time of the gift and it diminished the creditor's fund.

#### FINDER OF LOST PROPERTY

The general law on this subject is, that the finder of money or goods, if he takes possession of the property, is to use all due means to discover the rightful owner; and if he appropriates the articles to his own use, knowing the rightful owner, or without having made due exertion to find him, he is held guilty of larceny. Failing to find the rightful owner, after taking due means to do so, the finder of the lost articles is entitled to regard them as his own property.

## RULES GOVERNING THE FINDING OF LOST PROPERTY

1. The finder of lost property is the owner of it against all the world but the original owner. Thus, it is held that a stranger who finds lost money in a shop may retain it as against the shop owner.

Money Left on a Desk in a bank, provided for the use of its depositors, is not lost so as to entitle the finder to the same, as against the bank.

An Aerolite which buries itself in the ground is regarded as an accretion to the land, and belongs to the owner of the soil on which it falls.

- 2. The finder is always at liberty to leave untouched what he finds, and cannot be made accountable for any injury thereafter happening to it.
- 3. The finder may demand from the owner all his expenses necessarily incurred in keeping and preserving the property, and probably advertising and like charges for the owner's benefit.
- 4. If a reward be offered, specific and certain or capable of being made so by reference to a standard, the finder complying with the terms of the advertisement becomes entitled to such reward, and may sue for it.
- 5. If the finder of lost goods, or goods which are reasonably supposed by him to have been lost, appropriates them to his own use, really believing when he takes them that the owner cannot

be found, it is not larceny; but if he takes them reasonably believing that the owner can be found and thus appropriates them it is larceny.

#### THE LAW OF SUBSCRIPTIONS

Subscription is the placing of a signature under a written or printed agreement. By such an act a person contracts, in writing, to pay a sum of money for a specific purpose; as a subscription to a charitable institution, a subscription for a book, etc.

Subscription Papers.—"The law on the subject of these subscription papers," says Parsons, "and of all voluntary promises of contribution, is substantially this: No such promises are binding unless something is paid for them, or unless some party for whose benefit they are made (and this party may be one or more of the subscribers), at the request, express or implied, of the promisor, and on the faith of the subscription, incurs actual expense or loss, or enters into valid contracts with other parties which will occasion expense or loss. As the objection to these promises, or the doubt about them, comes from the want of consideration, it may be removed by a seal to each name, or by one seal which is declared in the instrument to be the seal of each."

Book Subscriptions.—A person subscribing for a book is bound to take it when delivered by the agent, provided it corresponds with the sample copy shown him when the subscription was given. The agent or publisher may recover at law the price of the book should the subscriber refuse to take it when presented to him.

Publication Subscriptions Received Through Agents.— The following rulings of the Postoffice Department became effective in October, 1919:

"Subscriptions obtained through agents or agencies on commission or in connection with clubbing arrangements with other publications in cases where the amount received by the publisher (after deducting the amount pald as commission, or as a rebate, or through other arrangements) is less than 50 per cent of the amount at the regular advertised annual subscription price of the publication, are at a nominal rate.

"This rule applies in cases where agents work on a combined commission and salary basis, as well as where they work on commission alone, and, therefore, publishers must receive at least 50 per cent of the amount at the regular advertised annual subscription price of the publication, after deducting both alary and commission, in order to bring the aubscriptions within the 'legitimate list of subscribers' re-

quired by law.

"In order that persons whose subscriptions are obtained through agents employed on a straight salary and expense allowance basis may be regarded as forming a proper part of the 'legitimate list of sub-cribers' pre-ribed by the statute, it is essential that the conditions obtaining with respect thereto be bona fide in every respect. To this end the agents' compensation should not be above that which is fair and reasonable nor out of keeping with the nature of the duties and services rendered. Expense allowances should be on the same balis, alway within rea onable bounds, and to this end some re-trictions should govern. The subscriptions should be solicited strictly on the merits of the publication, preferably at the regular price free from premium or other extraneous inducements, and not be obtained under arrangements tending to violate the clear intent of the law that a publication, to enjoy the secondclass mail privilege, shall be circulated in response to a genuine public demand and the publisher shall receive more than 'a nominal rate' for the subscriptions."

## WORKING ON SUNDAYS AND LEGAL HOLIDAYS

Sundays.—No one is bound to work on Sunday in performance of his contract, unless the work by its very nature or by express agreement is to be done on that day and can be then done without a breach of law.

Holidays.—There are no laws which forbid or compel a laborer to work on holidays. A laborer mult either work on such days or forfeit his wages. In most parts of our country people do not work on Christmas, New Year's, Fourth of July, and, in the East, on Thank giving Day, and, in the North, on Decoration Day, yet most employers pay their employees their usual wages. Where this custom is common and well known it may so govern that wages can be collected, though the work is not done.



Give me a place on which to stand and with my lever I will move the world.—ABCHIMEDES.

# WHEN A TRADE'S A TRADE

1. The Offer.—An offer, or proposal to do a thing, may be made either by words or signs, either orally or in writing, but in law it is not regarded as an offer until it comes to the knowledge of the person to whom it is made.

Offer by Mail.—In commercial transactions when an offer is made by mail, the general rule is that the offerer is entitled to an answer by return mail; but this will not apply in all cases,

for example, where there are several mails each day. In transactions which are not commercial, much less promptitude in answering is required.

When Revokable.—An offer which contains no stipulation as to how long it shall continue is revokable at any time. When an offer is made for a time limited in the offer, no acceptance afterwards will make it binding

2. The Acceptance.—An offer can only be accepted in the terms in which it is made; an acceptance, therefore, which modifies the offer in any particular goes for nothing

When the Trade's Complete —The rule that a contract is complete at the instant when the minds of the parties meet is subject to modification where the negotiation is carried on by letter, for here it is impossible that both parties should have knowledge of the moment it becomes complete

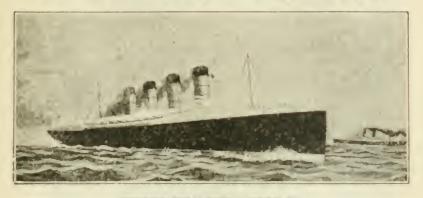
Where an Offer is Made by Letter, the mailing of a letter containing an acceptance of the effer completes the contract, although the letter containing the acceptance may be delayed or may not be received through fault of the mail.

Offers of Reward for the return of lost property, or for information leading to the arrest and conviction of offenders, become obligatory as soon as any one inspired to action by the offer complies with its terms. Where the offer is for information, the whole of which is furnished in fragments by different persons, the reward may be equitably proportioned, and so as to the recovery of property.

#### NAVIGATION LAWS

No vessel is deemed American and entitled to the protection of the American flag unless she is wholly built in this country and wholly owned and officered by Americans. Foreign vessels cannot engage in our coasting trade, which is held to include voyages from Atlantic to Pacific ports. American vessels cause to be such if even a part owner (except in a few instances) resides abroad for a short time. An American vessel once transferred by any process to foreigners, can never sail under our flag again. Duty must be paid on the value of all repairs which an American vessel makes in foreign ports on her return to this country. Restrictions are placed on the repairing of foreign vessels in our ports with imported materials. Vessels

engaged in trade to ports not in North or Central America, and a few specified adjacent places (except fishing and pleasure vessels), pay a tax on entry of six cents per ton of their burden, but the maximum aggregate tax in any one year does not exceed thirty cents. This is called a tonnage tax. Foreign vessels pay the



TURBINE STEAMSHIP MAURETANIA

Length 790 heet-horse power 70,000—displacement 43,000 tona.

Leaving Liverpool Sept 10th, 1010 for New York, she made the trip in 4 days, 10 hours, 41 minutes breaking all records.

same tax, but an American vessel is forced to pay an additional tax of fifty cents per ton if one of her officers is an alien. Materials for the construction of vessels for foreign trade may be imported free of duty, but the duty must be paid if the vessel engages for more than two months a year in the coasting trade.

# POINTS ON CRIMINAL LAW

Ignorance No Excuse.—Every person is presumed to know what the law is, and ignorance is no excuse for crime.

Arrests.—No one can be legally arrested without a warrant unless the person making the arrest has personal knowledge that the one he arrests has committed a crime. Any one without a warrant may arrest a person committing a felony in his presence, and any peace officer may arrest a person while committing a breach of the peace or immediately afterwards.

The rule, "Every man's house is his castle," does not hold good in criminal cases, and an officer may break open doors of the criminal's house to execute a warrant; and he may do so without a warrant, as also may a private person, in fresh pursuit, under circumstances which authorize him to make an arrest.

Warrants.—No warrant shall be issued but upon probable cause, supported by oath, or affirmation.

Innocence Presumed.—Every one is presumed to be innocent until the contrary is proved.

Bound to Aid the Sheriff .- Every man is bound to obey the call of a sheriff for a sistance in making an arrest.

An Accident is not a crime, unless criminal carel seness can be shown.

Arson is the malifious burning of another's house. In some States by statute it is an indictable offense to burn one's own house to defraud insurers.

"Settling" an Offense.—It is an indictable offense for the party immediately aggreed to agree with a thief or other felon that he will not prosecute him, on condition that he return the stolen goods, or to take a reward not to prosecute.

Embezzlement is the wrongful appropriation of the money or goods of another by one entrusted therewith. It was not indictable at common law, but has been made a followy by various statutes. Public officers, bank cashi rs, clarks, and of era acting in a fiduciary capacity are peculiary hable to be charged with this offense.

Drunkenness is not a legal excuse for crime, but sometimes is evidence of the absence of malice.

Self-Accusation.-No one ought to accuse himself except before God.

A Married Woman who commits a crime in the presence of her husband, unless it is of a very aggravated character, is presumed to act by his coercion, and, unless the contrary is proved, she is not responsible. Under other circumstances sho is liable, criminally, as if she were a single woman.

Insane Persons and others who are incapable of judging between right and wrong are usually absolved from criminal responsibility, though they may be liable civilly for damage done by their wrongful acts.

# MINES AND MINING

Laws Governing.—The laws governing mines and mining vary in the different States, and a person intending to engage in the mining business should consult the statutes of the particular State in which he desires to operate.

#### HOW TO LOCATE A MINE

Who May Locate.—All valuable mineral deposits in lands belonging to the United States, whether surveyed or unsurveyed, are "free and open to exploration and purchase by citizens of the United States, or those who have declared their intention to become such."

Requisites of Location.—To stake off a claim so as to entitle a prospector to a patent requires considerable care. Unless the boundaries are given correctly, and the claim located strictly in accordance with the statutory provisions, the application for a patent will be refused.

For existing regulations governing the requisition of mineral lands, the title to which is in the government, see Revised Statutes of the United States, Sections 2318-2352, and Supplement of Revised Statutes, pp. 166-67; 276, 324, 948, 950. An examination of these regulations is absolutely essential to the successful location of a claim, for it is not priority of discovery, but priority of compliance with the various requirements of the statutes that gives the right to the mine. As laws and regulations for the location, development and working of mines may be made by the different States, as well as by the general government, the statutes of the particular State where the mine is to be located should also be consulted.

#### BUREAU OF MINES.

From an exhaustive and carefully prepared report of the Committee on mines and mining submitted to the House of Representatives in March, 1910, the following is manifest; that among the industries of the country, in magnitude and importance, mining ranks second. Agriculture being first. The former contributes \$2,000,000,000, annually to our national wealth. It contributes 65 per cent of the freight traffic of the country. In 1910, the wages paid men engaged in mining amounted to \$864,158,487. It employs more than 3,000,000

men in mines and in performing labor connected with mining. It is the basis of a large portion of the nation's varied manufacturing interests, and of its supplies of light and heat. Neverthele's, there has been found to be an excessive and increasing waste in the resources of American mines-250,-000,000 tons of coal annually. More deplorable than this, is the ever increasing death roll-from 8,000 to 10,000 miners killed or seriously injured every year, most of them leaving widows and fatherless children. Each year our mines are becoming more dangerous as the work extends deeper and gases increase. It has been ascertained that in the United States, nearly three times the number are killed and injured in mines, to the 1,000, than in European countries. For the purpose of discovering some means of remedying this intolerable condition at the Second Session of the Sixty-first Congress, a Bill was passed and became a Law creating the "Bureau of Mines" for the purpose of providing such scientific inquiries and investigations as would enable Congress and states to provide legislation that would materially lessen this waste, and loss of life.

# LAWS GOVERNING PUBLIC ROADS

#### GENERAL PRINCIPLES

- 1. To prevent collisions, and to secure the safety and convenience of travelers meeting and passing each other upon the highway, a code of rules has been adopted which constitutes what is called the law of the road. These rules, originally established by custom, have, in many instances, been re-enacted and declared by statute, and are of general and uniform observance in all parts of the United States. In general, they apply to private ways, as well as public roads, and, indeed, extend to all places appropriated, either by law or in fact, for the purposes of travel.
- 2. Public Roads are those which are laid out and supported by officers entrusted with that power. Their care and control is regulated by the statutes of the different States, and in detail will Note—For Road Petitions see page 38.

not be referred to here, as they can be easily looked up by those who desire information so entirely local.

- 3. Ownership.—The soil and the land remain in the owner, who may put the land to any use, and derive from it any profit, not inconsistent with the rights of the public. If the road is at any time discontinued, the land reverts back to the owner.
- 4. Liability.—The repair of highways is usually imposed upon towns, and they are made liable by statute for all damages against persons or estates, from injuries received or happening in consequence of a neglect of duty on the part of the officers having the same in charge.
- 5. The Primary law of the road is that all persons using the same must exercise due care to prevent collisions and accidents. No one can claim damages for an injury mainly caused by his own negligence.
- 6. Persons traveling with carriages or vehicles of transportation, meeting on any public way, are required to turn their carriages or wagons to the right of the center of the road, so far as to permit such carriages or wagons to pass without interruption. Any unreasonable occupation of the public way, whether arising out of a refusal to turn out and allow a more rapid vehicle to pass, or from an unjustifiable occupancy of such a part of the road as to prevent others from passing, will render the party so trespassing liable for damages to any suffering injuries therefrom. A loaded vehicle must turn out, and allow those to pass who may reasonably and lawfully travel faster.
- 7. Riders are not governed by any fixed rules, but are required to use reasonable prudence at all times to prevent accidents. They need less room and can make quicker movements, and are, therefore, not under as well defined rules as vehicles.
- 8. Pedestrians have a right to use the carriage-way as well as the sidewalk, and drivers must exercise reasonable care to avoid injuring them, but a foot passenger in crossing the street of a city has no prior right of way over a passing vehicle; both are bound to act with prudence to avoid an accident, and it is as much the duty of the pedestrian to look out for passing vehicles as it is for the driver to see that he does not run over any one; nor does the rule requiring vehicles to keep to the right apply to carriages and foot passengers, for, as regards a foot passenger, a carriage may go on either side.

9. Runaways.—The owner of a runaway horse or horses, if negligent, or not exercising due care, is responsible for all damages that may occur. If a hor e naturally quiet to ride and drive is frightened by a railroad train, steam thresher or other causes not under the control of the rider or driver, and does any damage, or injures any per on or persons, the owner is not responsible. If horses are known to be vicious, or sustain a runaway reputation, break loo e or run away with their driver, or injure any person or persons, the owner is responsible, unless it can be shown that the horses were frightened by some obstacle which would naturally frighten a gentle or ordinarily quiet horse.

#### AUTOMOBILE LAWS

Many of the states have enacted laws, and most large cities passed ordinances, governing the operation of automobiles on the public highways. The provisions of the various laws and ordinances differ in some respects in the different states and cities, but generally all motor cars are required to be registered and numbered, and the number conspicuously displayed on the car, with proper lights at night.

Penalties are prescribed for "speeding" or traveling faster than a limit fixed by statute or ordinance. Most or all of the provisions are based on the English Motor Car Act of 1903, which provides a speed limit of twenty miles an hour, with power to the Local Government Board (on the application of the local authority) to reduce it to tan miles per hour within certain areas, or to prohibit altogether the driving of cars on any highway or part of a highway which does not exceed 16 feet in width, or on which ordinary motorcar traffic would in their opinion be dangerous.

The act provides for the punishment of speeding or reckless motoring on public highways, the registration and numbering of motor cars, the licensing of chauseurs and making it their duty to stop in case of accident and give the number of the car and the name and address of the owner, under penalty of fine and imprisonment.

The necessity of limiting the speed of automobiles on the public highways is apparent when it is considered that a speed of 120 miles an hour has been reached by the latest improved racing ears.

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# MONEY

Money, or the medium of exchange, in the United States consists of gold, silver, nickel and composition coins, and the paper money issued by the government and the national banks.

# COINS OF THE UNITED STATES

The following tables show the denominations, weight, and fineness of the coins of this country.

#### Gold

DENOMINATIONS.	Fine Gold Contained	Alloy Contained.*	Weight.
One dollar (\$1) Quarter eagle (\$2.50) (hree dollars (\$3). (falf eagle (\$5). (agle (\$10). (bouble eagle (\$20).	Grains. 23 22 58 05 69 68 116 10 232 20 464 40	Grains.  2 58 6 45 7 74 12 90 25 80 51 60	Grains. 25 80 64 50 77 40 120 00 258 00 510 00

<sup>•</sup>The alloy neither adds to nor detracts from the value of the coin.

## Silver

DENOMINATIONS.	Fine Silver Contained.	Alloy Contained.	Weight.
Standard dollar	173 61 86_805	Grains. 41 25 19 29 9 645 3 858	Grains. 412 50 192 90 96 45 38 58

Prior to the Act of February 21, 1853, all silver coins were legal tender in all payments whatsoever. The Act of February 21, 1853, reduced the weight of all silver coins of less denomination than the silver dollar about 7 per cent, to be coined on gov-

ernment account only, and made them legal tender in payment of debts for all sums not exceeding five dollars. No foreign coins are legal tender in the United States.

#### Minor

DENOMINATIONS.	Fine Capper Cortain 1	Conta 1	Weight
Five cents*	Graine	(.r	Gra
	87 H7	1   20	77 16
	45 60	2   40	48 00

- \* Seventy-five per contract copper, 25 per contract
- t Ninety-flve per cont copper Spercent tin and zucc.

Troy weights are used, and, while metric weights are by law assigned to the half and quarter dollar and dime, troy weights will continue to be employed, 15.432 grains being considered as the equivalent of a gram, agreeably to the Act of July 28, 1868

The weight of \$1,000 in United States gold coin is 53.76 troy ounces, equivalent to 3.68 pounds avoirdupois. The weight of \$1,000 in standard silver dollars is 859.375 troy ounces, equivalent to 58.92 pounds avoirdupois, and the weight of \$1,000 in subaldiary silver is 803.75 troy ounces, equivalent to 55.11 pounds avoirdupois.

#### Where Coins Are Made

The coins of the United States are made at the mint in Philadelphia, and at the branch mints in New Orleans, San Francisce, Carson City, and Denver. Those coined in Philadelphia have no mint mark on them, but those coined in New Orleans have an O on the reverse side, below the eagle; those coined at San Francisco an S; those coined at Carson City, CC; and those coined at Denver a D.

#### Total Number and Value of United States Coins

The total number of gold pieces coined at the mints of the United States from their organization, 1792, to June 30, 1902, was 206,517,774, of a total value of \$2,328,134,400.50, total number of silver coins, 1,736,628,993, of a total value of \$81,553,027.50; total number of minor coins, 2,019,854,160, of a total value of \$37,943,273.97; total number of coins of all kinds, 3,963,000,927, of a total value of \$3,227,630,701.97.

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## Legal Tender Value of Coins

Legal tender is a term used to designate money which may be lawfully used in the payment of debts.

Gold Coin is legal tender at its nominal or face value for all debts, public and private, when not below the standard weight and tolerance prescribed by law; and when below such standard and legal tolerance it is legal tender in proportion to its weight.

The Standard Silver Dollar is legal tender for all debts, public and private, without regard to the amount, except where otherwise expressly stipulated in the contract.

The Trade Dollar, a silver piece no longer coined, is not legal tender for any amount; nor is any of the commemorative coinage, such as the Columbian Exposition issue.

The Subsidiary Silver Coins, half dollars, quarters and dimes, are legal tender in sums not exceeding tendollars, in payment of all public and private debts.

Minor Coins, all coins of the United States of smaller denomination than dimes, are legal tender for single payments not exceeding twenty-five cents.

#### PAPER MONEY OF THE UNITED STATES

The paper money of this country consists of four kinds: first, legal tender notes, which are divided into United States notes and Treasury notes; second, national bank notes; third, gold certificates; fourth, silver certificates.

The Legal Tender Notes of the United States are bills issued merely on the credit of the government. The acts of 1875 and 1882, however, direct the Treasurer of the United States to hold \$100,000,000 as a reserve for their redemption.

The National Bank Notes are issued by the national banks and guaranteed by the government, the banks depositing United States bonds as security.

Gold and Silver Certificates are issued by the government against deposits of gold and silver coin, and are exchangeable for the coin on demand. The Treasury holds the coin so deposited as a trust fund. The certificates represent the coin and are used in preference to it merely because of greater convenience in handling.

#### Legal Tender Value of Paper Money

United States Notes are legal tender for all debts, public and private, except duties on imports and interest on the public debt.

Treasury Notes I well under the act of July 14, 1890, are legal tender for all dobt, public and private, except where otherwise expressly stipulated in the contrast.

Gold and Silver Certificates are not lead toud r, but are receivable for ou toms and all public dur-

National Bank Notes are not lead timber, but are receivable for all public due except dath or import, and may be paid out by the government for all charles and other daths and demand owing by the United title to individuals, corporations and acciation within the United State, except interest on the public debt and in red importion of the United State notes and Tressury notes.

#### GOLD IN THE UNITED STATES

#### Total Held By Or For Credit Of Federal Reserve Banks

December	31.	1914		۰												0	8	0	2	1	1	. 3	0	1		0 (	0 (	0
December	30.	1915		۰			٠									0		1	5	6	2	. 4	1	3		0 (	01	0
December	29.	1916				٠				٠								1	į.	3	6	. 0		ťj		01	0	0
December	31.	1917			۰	٠	٠	٠		٠				0		ī	1	. 1	5	7	4	. 4	1)	15		0 (	00	0
December	31.	1918					٠					۰					2	. 6	)	9	20	. 0	1	00	.1	01	01	0
October	17.	1919															2	. 1	t	2	8	. 4	4	3		01	01	0

# Estimated Stock in The United States

December	31,	1913				 					,	1.	3	4	.3	6	1	.0	00	0
December	31.	1914			٠				p			1.1	3 1	5	.9	7	6	.0	01	)
December	31.	1915					۰		٠			2.	3 ]	20	.4	4	4	.0	00	0
December	31.	1916			٠	 						2.	8 6	4	. 9	4	00	,0	0	0
December	31.	1917				 	٠					3,1	) (	0	.4	3	9	.0	01	0
December	31.	1918				 						3.	) 8	0	. 5	1	0	.0	00	0
September	30.	1919				 						2.	0	5	.7	2	7	.0	00	0

#### HOW TO SEND MONEY

There are various methods in vogue for sending money. The choice between them is largely a matter of circumstance and convenience.

Bank Drafts.—A draft on some reliable bank is by far the best and most business-like way to send large amounts of money. It is safe, convenient and cheap.

Postoffice Order.—By postoffice order is also a safe and reliable way to send money. It costs a little more than to remit by

draft, but it is equally secure, and many times more convenient, because the postoffice is acc ible at all hours of the day.

Registered Letters.—The government promises special care in handling and transmitting a registered letter or package, but is liable not to exceed twenty-five (\$25) dollars in case the letter or package is lost. This applies only to first-class registered matter.

Express Orders.—The express order, as to security, has all the advantages of the bank draft or partoffice order. Serious disadvantages often arial however, when the express office on which the order is drawn has not the money on hand to pay it, consequently the holder of the order has to wait the slow action of the company's agents in getting the amount forwarded from some other office.

#### HOW MONEY IS SENT BY TELEGRAPH

Telegraph offices are supplied with blanks for sending money, and to know just how it is done might be no small relief in an emergency. If by any accident one finds him elf far from home and moneyless he can telegraph for money and get a remittance at once. The friend to whom the telegram is sent should take the precaution to satisfy himself that the message is from the person whose name is attached to it. He then take this money to the telegraph office and makes out the following blank:

Non.

The Western Union T lear policer, any.
Pay to
for me, adject to the fore and terms and condition, which are alread to
(Signature).
(Addr ***)
Amount of Transfer, \$
Telegraph Service
Other Service
Total \$
As the within named may
not be able to produce proper evidence of personal identity, I here in thor-
ize and direct The Western Union Telegraph Co. to pay within it med m
of dol re, at my risk, to such person calling for the sine
as the proper office mana er or a ent of said company shall believe to be
sald
(Signature
Charges of 1 per cent are made on all sums of \$25 or over, and

for smaller amounts 25 cents in each case.

#### EXECUTORS AND ADMINISTRATORS.

An executor is named in a will to execute that will and settle the estate. If the will does not name an executor, or if named, he will or can not act, the Probate Court (some states Surrogate, others Orphans' Court) appoints an "administrator with the will annexed." If a per on dies without leaving a will the court appoints an administrator, whose duty is the same as that of an executor, except that he, having no will of the deceased, distributes the property as the law directs.

The duties of an executor are: First To see that the deceased is suitably buried, avoiding unreasonable expense if the estate is insolvent. Second. To offer the will for probate, or proving; to conform to the liws of his state and rules of the court, the clerk of which will give full in truc-Third. To make and return to the court within required time an inventory of the property. "Real estate lying in another state need not be inventoried, for that mu t be administered upon in the state where it ile, but per onal property situated in another state should be inventoried" If the real estate is encumbered, it should be discribed. Fourth. To collect the property, pay the debts and dispose of the remainder as the law and will, or either, dire ts. Generally the debts should be paid as follows: 1. Funeral expenses. 2. Expenses of last sickness. 3. Debts due the United States. 4. Debts due the state. 5. Claims of creditors, Fifth. To render the accounts as directed by the court and the law.

Commissioners are generally appointed to hear the claims of all within a limited time. An appeal from their action may be taken to the court. If no appeal, the executor pays the legacles, etc., makes final accounts which are submitted to a hearing, and if no objection, the estate is closed. If the executor dies before the estate is closed, his executor has no authority over the first estate. Another is appointed to complete the execution.

The law provides that the widow of the intestate shall be first entitled to act as administrator, next, the nearest of kin who are competent; next, any creditor who will accept the trust; and lastly, any other person of proper ability.

Executors and administrators are required to take an official oath; also to give a bond, which is usually for double the amount of the estate. Exceptions are few.

# EXECUTOR'S OR ADMINISTRATOR'S BOND.

KNOW ALL MEN BY THESE PRESENTS, That I, Charles D. Mann KNOW ALL MEN BY THESE PRESENTS, That I, Charles D. Mano of Ira, in the County of Rutland and State of Vermont, as principal, and Benj. E. Merrill of Poultney and N. Wright Emerson of Wells, in the County of Rutland aforesaid, as sureties, are holden and firmly bound unto the Probate Court for the District of Rutland (in some states, unto the People of the State of ...), in the sum of Eight Thousand Dollars, to be paid unto the said Probate Court, to the which navgand well and trilly to be made we hind ourselves and to the which payment well and truly to be made we bind ourselves, and to the which payment well and truly to be made we bind ourselves, and each of our heirs, executors and administrators, jointly and severally, firmly by these presents, signed with our hands and sealed with our seals.

Dated at Rutland, in said District, this fifteenth day of September,

A. D. 1910.

The condition of the above obligation is such, That if the above bounden Charle D. Mann, Executor of the last Will and Testament of John I. Merritt, into of Fair Haven, in the County of Rutland and State of Verment, deceased, shall make and return to the Probate Court within three months a true and perfit inventory of all the good, chattels, rights, credits, and estate of said deceased, which shall come to his possession or knowledge, or to the possession of any other person for him, and allo all other good, chattels, rights, credits and estate of said deceased which shall any time after come to his possession, or the possession of any other person for him; and shall well sion, or the possession of any other person for him; and shall well and truly administer the same and pay and dicharge all debts, legacies and charges chargeable thereon, or such dividends thereon as shall be and charges chargeable thereon, or aden dividends thereon as shall be ordered and decreed by said Probate Court, render a true and just account of his administration to said Court, within one year, and at any other time when required by said Court, and perform all orders and decrees of said Probate Court by Executor to be performed in the premises—then the above obligation is void, otherwise in force. Signed, sealed and delivered

In presence of II. MAX WEBBER, Clerk of County Court.

(L. S.) (L. S.) JOHN HANCOCK. J D. OGDEN DAVID E. LEE. (L S.)

Some States require acknowledgment as below.

RUTLAND COUNTY, 88. At the session of Probate Court in and for said County, holden at Rutland, on the eighteenth day of September, A. D. 1910, I have examined and do approve of the foregoing bond, and order the same to be filed and recorded in the Probate Office of said County. FRED ROTHLIS, Judge of Probate.

# COUNTERFEIT MONEY

A counterfeit bank note is a fac-simile of the genuine, or as nearly like it as it is possible to make it. A spurious note is one whose designs are different from the genuine, and is intended to pass in places where the genuine is unknown. An altered note is one that is altered from a lower to a higher

denomination; or on a broken or born bank, having the name or locality changed for that of some reput ble bank. A cul nate is one made from pieces cut from a number of sold bills. A little strip is cut from one genuine note, a little larger trip from another, and the trip cut from the first in place of it, and so on, until, by killful cutting on extrabill out of about every ten is made.

# Rules for Detecting Counterfeit Coins

Gold.—A spuriou gold coin may som times to detected by the dull sound it makes when thrown upon the counter. Its size and weight serve as an additional test, a spurious gold coin



THIS FIVE HUNDRED DOLLAR BILL IS COMPUTED OF SLATER FIRCES CUT FROM GENULSE NOTES, AND MAS SENT TO THE UNITED STATES THE ANTHER FOR REDEMPTION BY A NEW YORK BANK CLERK

usually being made larger than a genuine coin of the same denomination in order to give it the necessary wight. The milling or edge work usually is imperfect, owing to the fact that the counterfeit coin is generally east in a mult, while the genuine coin is stamped and cut with a die. All counterfeit coins have a greasy feel when rubbed between the fingers and thumb. But the most dangerous counterfeit gold coins are made from a die, and sometimes can only be detected by the acid test. Strong nitric acid, 6½ drachms, muriatic acid, ½ drachms; water, 5 drachms, constitute the acid mixture necessary for the test. If the edge of a coin be scratched with a knife and exposed to a drop of this mixture, the color will change instantly if the coin is counterfeit, and if the coin is genuine the acid will have no effect upon it.

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Genuine gold coins of large denominations are frequently debased by processes known as sweating, plugging, and filling. Sweating is done by means of abrasion, filing, or an acid bat a Plugging is done by boring a hole in the coin and filling the place with some base metal, which is then plated over with gold. Filling is done by sawing or splitting the coin into two thin pieces, removing the interior, filling in with base metal, joining the pieces together again, and then remilling and plating the edges.

Silver.—Most counterfeit silver coins are made from Babbitt metal, and are almost always molded. Glass is sometimes mixed with the metal to give the coins a ringing sound. This often makes them so brittle that they are shattered when thrown upon the counter. Their imperfect edges and greasy feel usually reveal them to be counterfeit. When they are made from a die, however, and antimony and lead are used in their composition, the acid test is generally required to detect their true character.

Five-Cent Pieces (nickels) have been extensively counterfeited, but usually are easily detected, being made of pewter or some other soft composition

#### How to Detect Counterfeit Bills

- 1. Counterfeiters rarely, if ever, get the imprint or engraver's name perfect. The shading in the background of the vignette and over and around the letters forming the name of the bank on a good bill is even and perfect; on a counterfeit it is uneven and imperfect.
- 2. Examine the vignette or picture at the top of the note closely. If the note be genuine, the faces have a life-like expression, the eyes are well-defined, showing the pupil and the white distinctly, the drapery or dress fits well, looks easy and natural, and shows the folds very plainly; in short, the entire figure harmonizes. The sky is clear, or transparent, soft or even, not scratchy, and all the different objects have a finished appearance. In the genuine note all the small figures in the background are perfectly executed.
- 3. Examine the lettering. In a genuine bill it is absolutely perfect. There has never been a counterfeit put out but was more or less defective in the lettering.
- 4 Examine the medallion rulings and the circular ornaments around the figure carefully, and see if they are uniform, regular

and smooth. If there are two modallions on a note down like, they are exactly alike, as they are from the sine original die. This work is done by a geometrical latter a machine of greater t, which produces the crucia at 1 transfer impossible for a counterfactor to produce a good limitation. A microscope is a great at 1 in examining the for a work.

- 5 Examine the sign sture of the president and the cuber. In some counterfeits they are lithe raphed for an in in level over with a pen, giving them the appearance of being stamped. The stroke has a dead color and rough edge, and the pen description always follow the hair-stroke curve exactly. The smaller natures, being written with a pen, look more or less given, and the stroke has a smooth edge.
- 6. The paper of a counterfeit U S note is always of an inferior quality, while the government has the best and mest perfect system of manufacturing the highest grade of paper. The first notes printed on this paper, in 1809, he called the redistributed promised by all through the paper, then came note having silk threads running through them length who near the top and bottom, and later on notes having distributed across and near their ends. By helding the bills up to the light you can easily see the file as or threads in each bill. This is one of the best tests of a genuine bill, because no counterfeiter can imitate the paper of the bills in this respect.
- 7. Bank notes that have been altered by what is called the "pasting process" can be detected by holding them to the light. The parts pasted on will then be easily discovered. If any alteration has been made by substituting letters or figures for others that have been erased, the denomination in the center of the note, if carefully examined, letter by letter, will be found to be blurred and improperly formed, and the parallel lines irregular and imperfect.
- S. The texture of the paper between the letters is frequently destroyed. This defect can be discovered by comparing the paper between the letters with that immediately above and below them. Sometimes the ink of the altered part is different from the rest of the note.
- 9. The ink used in genuine notes is very difficult to initiate. It gives a clear, glossy impression, while counterfeiter's ink looks dull, smutty and muddy.

10. The numbers on the genuine bills are printed in either red or blue ink of a permanent brilliancy, so that no matter how dim the rest of the bill has become, the numbering always stands out clear and distinct.

The e rules are e pocially approved by New York banker. One should be careful not to be imposed upon by a stranger seeking the accommodation of having one large bill ex hanged for everal small one.

One should acquire the habit of looking sharply at a bill before taking it, e pecially of a tranger, and, more concerning that a place of amuse int, or where there is a special tendency to have and liability to imposition.

### POSTAL INFORMATION

#### POSTAL SERVICE OF THE WORLD

Two-thirds of all the letter which put through the postonce of the world are written by and contato people who
speak lings has the reasonable and contato people who
speaking colloquially one or another of the ten or
twelve third modern European language, and of these,
at lett one-third, or 250, 10,000 per not, speak English.
In round figure, 10,000,000 pek Russia, eventy-five
million German, ixty-odd million French, at the five million Spanish, thirty-five million Italian and welve million
Portugue e, and the balance Humaran, Dutch, Polish,
Flemish, Slavic, Danish and Norwegian. Thus, while only
one-quarter of the ewho employ the facilities of the postal
d partments of civilized governments speak, as their native
tongue, English, two-thirds of the ewho correspond do so
in the English language.

This situation arise from the fact that so large a share of the commercial business of the world is done in English, even among those who do not speak English as their native language. There are, for in tance, more than 20,000 postofices in India, the business of which in letters and papers aggregates more than 300,000,000 parcels a year, and the business of the offices is done chiefly in English, though of India's total population, which is nearly 300,000,000, fewer than 500,000 per one either speak or under tand English.

Though 150,000,000 speak or understand Russian, the bulines of the Ruslian post department is relatively small, the number of letters sent throughout the old empire amounting to less than one-tenth the number mailed in Great Britain alone, though the population of Great Britain is considerably less than one-half of the population of Russia in Europe.

The Southern and Central American countries, in which either Spanish or Portuguese is applien, do comparatively little postedice business; the total number of letters posted and collected a year in all the countries of South and Central America and the West India being less than in Australia. Chile and Argentina are, in fact, the only two South American countries in which my important postal business is done, and most of the letter residual from or sent to foreign countries are not in Spanish, but in English, German or Italian.

#### POSTAL SERVICE OF THE UNITED STATES

The Growth of the postal service of the United States is amazing. In 1800 there were 0.1 pointing, 20817 inites of mail routes and yearly revenues of \$2.2.4.1. Today the point offices number over 61,000, there are over a half mills of mail routes, and the yearly revenue exceed \$2.4,000,000.

The postal service of the United States handle over 50 per cent more mail matter than the pertal service of Great Britain, about 100 per cent more than the pertal service of Germany, and over 100 per cent more than the pertal service of France.

Domestic Rates of Postage —All mailable matter to points in the United States, Canada, Mexico, Cuba, Porto Rico, Hawati, Guam, Tutuila, and the Philippines, is divided into four classes under the following regulations:

First-Class Matter.—This class includes letters, postal cards, "post-cards," and anything seal of or otherwise closed against inspection, or anything containing writing not allowed as an accompaniment to printed matter under class three.

Rates of letter postage, two cents per ounce or fraction thereof

Rates on local or drop letters at free delivery offices, two cents per ounce or fraction thereof. At offices where there is no free delivery by carriers, one cent per ounce or fraction thereof.

Rates on postal cards, one cent (double or "reply" cards, two cents). Nothing must be added or attached to a postal card, except that a printed a ldress slip not larger than 2 inches by ¾ of an inch may be pasted on the address or message side. The addition of anything else subjects the card to letter postage. Cards that have been spoiled in printing or otherwise will be redeemed from the original purchasers at 75 per cent of their face value, if unmutilated "Post cards" or private mailing cards bearing written makes may be transmitted in the domestic mails at the rate of a cent apiece, stamps to be affixed by the sender; such cards to be ant openly in the mails.

Rates on Specially Delivered Letters, ten cents on each letter in addition to the regular postage. This entitles the letter to immediate delivery by special messenger. Special delivery stamps are sold at postoffices, and must be affixed to such letters. An ordinary ten cent stamp affixed to a letter will not entitle it to special delivery. The delivery, at carrier offices, extends to the limits of the carrier routes. At non-carrier offices it extends to one mile from the postoffice. Postmasters are not obliged to deliver beyond these limits, and letters addressed to places beyond must await delivery in the usual way, notwithstanding the special delivery stamp.

Prepayment by stamps invariably required. Postage on all letters should be fully prepail, but if prepaid one full rate and no more, they will be forwarded, and the amount of deficient postage collected on delivery; if wholly unpaid, or prepaid with less than one full rate and deposited at a postofilce, the addressee will be notified to remit postage; and if he fails to do so, they will be sent to the Dead Letter Office; but they will be returned to the sender if he is located at the place of mailing, and if his address be printed or written upon them.

Letter rates are charged on all productions by the typewriter or manifold process, and on all printed imitations of typewriting or manuscript, unless such reproductions are presented at postoffice windows in the minimum number of twenty identical copies separately addressed.

Letters (but no other class of mail matter) will be returned to the sender free, if a request to that effect is printed or written on the envelope. There is no limit of weight for first-class matter fully prepaid.

Prepaid letters will be reforwarded from one postoffice to another upon the written request of the person addressed, without additional charge for postage. The direction on forwarded letters may be changed as many time as may be necessary to reach the person addressed.

Second-Class Matter. - This class include all new paper periodicals, or matter exclusively in print and resulting the unlast stated intervals as frequently as four times a year from a known office of publication or news agency to actual all criters or news ac uta, and tran I at new paper and publications of this class mailed by persons other than publishers. Publishers tions having the character the of book and make are of aul ribed for on account of their literary mer to but because of other inducements, are not click to an I-law privilege. Second class matter also includes percelled publications of benevolent and fraternal most or and I would the lale sy tem and having a member big of a the read persons and of the bulletin and proceeding of trictly prife and, lit may, hi torical, and scientific as whaters and in thut it, trade unions, etc., provided only that the be published at that I introals not les than four time a year, and that they be print I on and be bound in paper Publisher who will avail themselves of the privilege of the ast are required to make formal application to the department through the perturb trat the place of publication, products at factory explores that the organizations represented come within the purview of the law, and that the object of the jull rations is to further the objects and purposes of the cre-nications

Rates of Postage to Publishers, one cent a pound or fractional part thereof, prepaid in convency. Publications designed primarily for adverting or free circulation, or not having a legitimate list of subscribers, are excluded from the pound rate, and pay third-class rates.

Secon l-class publications must possess be itimate sub-ription lists approximating 50 per cent of the number of copies requiarly issued and circulated by mail or otherwise. Unless they do, pound-rate privileges are revoked or withheld.

Publications sent to actual subscribers in the county where published are free, unless mailed for local delivery at a letter carrier office.

Rates of postage on transient necespapers, magazines, or periodicals, one cent for each four ounces or fraction thereof. It should be observed that the rate is one cent for each four ounces, not one cent for each paper contained in the same

wrapper. This rate applies only when a complete copy is mailed. Parts of second-class publications or partial or incomplete copies are third-class matter. Second-class matter will be entitled to special delivery when special delivery ten-cent stamps are affixed in addition to the regular postage.

Transient second-class matter must be so wrapped as to enable the postmaster to inspect it. The sender's name and address may be written in them, but any other writing subjects the matter to letter postage. The name and address of the

sender may also be written on the wrapper.

Third-Class Matter.—Mail matter of the third class includes printed books, pamphlets, engravings, circulars in print (or by the hectograph, electric-pen, or similar process when at least twenty identical copies, separately addressed, are mailed at postoffice windows at one time), and other matter wholly in print, proof-sheets, corrected proof-sheets, and manuscript copy accompanying the same.

The rate on matter of this class is one cent for each two ounces or fraction thereof.

Manuscript unaccompanied by proof-sheets must pay letter rates.

Third-class matter must admit of easy in spection, otherwise it will be charged letter rates on delivery. It must be fully prepaid, or it will not be forwarded.

The limit of weight is four pounds, except single books in separate packages, on which the weight is not limited. It is entitled, like matter of the other classes, to special delivery when special delivery stamps are affixed in addition to the regular postage.

Upon matter of the third class, or upon the wrapper or envelope inclosing the same, or the tag or label attached thereto, the sender may write his own name, occupation, and residence or business address preceded by the word "from," and may make marks other than by written or printed words to call attention to any word or passage in the text, and may correct any typographical errors. There may be placed upon the blank leaves or cover of any book, or printed matter of the third-class, a simple manuscript dedication or in-cription not of the nature of a personal correspondence. Upon the wrapper or envelope of third-class matter, or the tag or label attached thereto, may be printed any matter mailable as third-class, but there must be left on the address side a space sufficient for the legible address and necessary stamps.

Fourth-Class Matter.—Fourth-class matter is all resolution matter not included in the three preceding class which is a prepared for mailing as to be easily withdrawn from the verific and examined. It embraces merchandise and stuff of every description, and coin or specie.

Rates of potage, one cent for each once or form a thereof (except seed, roots, bull, cutting, wien, and part the rate on which is one cent for each two on me or front of the form.). This matter must be fully prepaid, or it will not be forwarded. The affixing of special dilivery tencent tamp in addition to the regular postage entitles fourth-classmatter to point delivery. (See remarks under Fir t-Class Mutter)

Articles of this class that are liable to injure or defice the mails, such as glass, sugar, no the mails, pens, etc., must be first wrapped in a bag, box, or open envelope and then secured in another outside tube or box, made of metal or hard wood, without sharp corners or edge, and having a sliding class or screw lid, thus securing the articles in a double packets.

Such articles as poisons, explosives, or indamenble articles, live animals, insects, fruits, or vegetable matter liable to decomposition, or substances exhaling a bad odor will not be forwarded in any case.

Firearms may only be sent in detached parts.

Limit of weight of fourth-class matter, four pounds.

The name and address of the sender, preceded by the word "from," also any marks, numbers, names, or letters for the purpose of description, such as prices, quantity, etc., may be written on the wrapper of fourth-class matter without additional postage charge. A request to the delivering postmaster may also be written asking him to notify the sender in case the package is not delivered.

Registration.—All kinds of postal matter may be registered at the rate of eight cents for each package in addition to the regular rates of postage, to be fully prepaid by stamps. Each package must bear the name and address of the sender, and a receipt will be returned from the person to whom addressed. Mail matter can be registered at all postoffices in the United States.

An indemnity, not to exceed \$25 for any one registered piece, or the actual value of the piece, if it is less than \$25, shall be paid for the loss of first-class registered matter.

Domestic Money Orders .- Domestic money orders are issued

by money-order postoffices for any amount up to \$100, at the following rates:

For sums not exceeding \$2.50, 3 cents; over \$2.50 to \$5, 5 cents; over \$5 to \$10, 8 cents; over \$10 to \$20, 10 cents; over \$20 to \$30, 12 cents; over \$20 to \$40, 15 cents; over \$40 to \$50, 18 cents; over \$50 to \$60, 20 cents; over \$60 to \$75, 25 cents; over \$75 to \$100, 30 cents.

Stamped Envelopes.—Embossed stamped envelopes and newspaper wrappers of several denominations, sizes and colors are kept on sale at postoffices, singly or in quantities, at a small advance on the postage rate. Stamps cut from stamped envelopes are valueless; but postmasters are authorized to give good stamps for stamped envelopes or newspaper wrappers that may be spoiled in directing, if presented in whole condition and with satisfactory evidence.

Foreign Postage Rates.—The rates of postage to all foreign countries and colonies (except Canada, Cuba and Mexico) are as follows: (Letters to Great Britain or Ireland, 2 cents an ounce or fraction thereof;) Letters, first ounce or less, 5 cents; postal cards, each, 2 cents; double postal cards, each, 4 cents; newspapers and other printed matter, per 2 ounces, 1 cent. Commercial papers: Packets not in excess of 10 ounces, 5 cents; packets in excess of 10 ounces, for each 2 ounces or fraction thereof, 1 cent. Samples of merchandise: Packets not in excess of 4 ounces, 2 cents; packets in excess of 4 ounces, for each 2 ounces or fraction thereof, 1 cent. Registration fee on letters or other articles, 10 cents.

Ordinary letters for any foreign country (except Canada and Mexico) must be forwarded whether any postage is prepaid on them or not. All other mailable matter must be prepaid, at least partially. Matter mailed in the United States addressed to Canada, Cuba or Mexico is subject to the same postage rates and conditions as it would be if it were addressed for delivery in the United States. Full prepayment is required upon all registered articles; and postage upon all articles other than letters is required to be prepaid, at least in part. If the postage is not prepaid in full, double the amount of the deficiency will be collected of the addressee when the article is delivered. The rate on "commercial papers" per 2 ounces is the same as for "printed matter," except that the lowest charge on any package, whatever its weight, is 5 cents. The rate on samples of merchan li e per 2 ounces is also the same as for "printed matter," except that the lowest charge on any package, whatever its weight, is 2 cents.

Articles of every kind and nature which are admitted to the United States dimestic mails are admitted, at our dimetic postage rate and conditions, to the mile and an idea two in the United States and the United States Petil Agany at Shanghai, China. Articles address if a subject of the wing places in China, namely. Cheft (Yearth China Harkow, Hang Chow, Hanne, Killian, Kalan, Kinklang, Nanking, New-Chwang, Ninepo Ours, Petilas, Shanghai, Taku, Tientin, Wenshow, Wurdens, William Yeartal, are tran missible in the mail in the up at San Francisco Statle and Tacoma for the United States Petil Agany at Shanghai; but at places other than Shanghai additional course for petage may be collected of the address upon the delivery of the articles.

Parcels Post .- The first pare lap to avert in low a the United States and any country in Purpo was signed between the United States and Gernary on August .0, 1- 1, and west into operation October 1. It was the beauting of a petal ervice by means of which art le of me hall any be exchanged by mail between the two countries, provided they are put up in packages which do not exceed 4 pounds 6 ours in weight. The postage rate for parcel going from the United States to Germany is fixed at 12 cents for each pour lor fraction of a pound. The rate in Germany on parcel for the United States is fixed at I mark 40 plunning a pared, who tower its weight. Provision is made for customs declaration and payment. The United States had parcels post conventions with several countries in Central and South America and the West India Islands, but this was the first convention made with any country in Europe. The law empowers the Postmaster General to make such conventions by and with the alvice and cor ant of the President.

#### BE CAREFUL

The carelessness and oversight of a hurrying people is exemplified by the report of the Dead Letter Office at Washington, that there are on the average 213 letters and parcels without any address whatever received there daily. Considerably more than half of them contain money. In a single year (1903) the Dead Letter Office received 249,255 letters, all containing postage stamps, and besides these \$5,821.96 in postage stamps that

had gotten out of the letters were found loose in the mail bags.

The Dead Letter Office returns what it can, but the carelessness or ignorance which misdirects letters is very apt to record no return address for the enlightenment of the postoffice. In consequence, while there were in the same year 2.544.879 letters sent to the Dead Letter Office, which were subsequently delivered to their owners, and 5.808 returned to the writers, there were 6.111.493 that gave no clue and were destroyed. There were sold at auction 5.702 pieces of merchandise that came to the Dead Letter office and could not be delivered; also 936 parcels of books and 476 pieces of jewelry.

Suggestions, —Always write "Transient," or "General Delivery," on matter for persons not living where you send mail to them.

When directing to cities, always add the street and number, or postoffice box, of the person addressed, unless marked "Transient," or "General Delivery."

To insure certainty in dispatch of mail, give the county in which the postoffice is, and spell out the name of the State in full.

If you will write or print your name and address (and the contents, if a package) in the upper left hand corner of your mail matter, it will be returned to you for correction, if improperly addressed, or insufficiently paid, and if not called for at its destination, it can be returned to you without going to the dead letter office. If a letter, it will be returned free.

Register all valuable letters and packages.

#### POSTAL SAVINGS.

An Act of Congress approved June 25, 1910, provided for the establishment of Petal Savings Depentance in all parts of the country, thus enabling all persons of the age of ten years or over to open an account by making an initial depent of One Dollar or any multiple of it not exceeding One Hundred Dellars in any one calendar month. Less amounts than one dollar may be accounted to fire deposit by purchating for ten cents from any depositary a potal savings card to which may be attached adhelive stamps of the denomination of tenic nts representing the small amounts saved. When these stamps, including the card amount to one dollar, they may be deposited and will draw interest at the rate of two per cent per annum. When these postal savings reach the sum of Twenty Dellars, they may be ex-

changed for a United States bond of the derimination of Touty Dollars, bearing interest at the part of the percent, parallel semi-annually. The faith of the United States as distinctly and to the payment of the displayed to the displayed the transfer of the displayed the transfer of the displayed the transfer of the displayed the displayed to the displayed the displayed to the displayed

## PROPERTY, REAL AND PERSONAL

All property is divided into relimit and property 1 Real Estate means land and expense prover or built upon it, such as trees, however and all himself to the builties.

2 Personal Property: everything the Tourist Capital stock of railroad companies and other companies are larger ty, even the architecture of the property of corporation and the stock of land,

A note, draft or claim upon a delibr is personal property. Real estate may change to personal property. Thus, transgrowing and coal in mine are real but who transfer out down and coal is mined, they be only a not. Real so not imply the immovable character of property.

- 8 Joint Ownership.—Here each prom has a promit and equal right to promote Alloun use it or all it togetor each can dup sof his hare as he place. If in a livid in they cannot agree, one can bring suit and the court will divide it.
- 4. To Hold in Trust.—Sometime property is placed in trust of a third party for the use of children under a case Such a person is called a trustee, and is entrusted with the duty of manning the property and applying the profits to the use of the out-be benefited.

The rights of such tru tee are usually defined by a will. The powers of the trustee over the property are govern 1 by the deed or will creating the trust.

The trustee can do nothing with the estate to benefit himself. The beneficiary has no power over the property; in some cases he cannot even transfer his rights to receive the income to another-

For laws governing the sale and transfer of real estate or interest therein, see Deeds, Leases, Mortgages For laws governing sales of personal property, see Sales Negotiable Notes, Chattel Mortgages.

## RIGHTS AND OBLIGATIONS OF PARENTS AND CHILDREN

In ancient domestic life the father ruled as absolute monarch over the family. So it is still in oriental countries. Christian civilization has greatly modified this and laws have been enacted that set forth the relation of parent and child, defining the duties and obligations of each.

#### RIGHTS OF PARENTS

- 1. As long as a child is under age he is subject to the control of the parents, who have all reasonable authority to enforce obedience. As long as a child is properly treated by the parents no one has a right to interfere nor to take away and retain a child against their wishes.
- 2. Adopting a Child.—When a child is adopted by another family it parents lose their claim upon it and the adopting persons take their place. A child cannot be adopted without the consent of its parents, but if cone it once given it cannot be revoked

A child over fourteen mu t himself consent to the adoption. The court has in all call the right to consent to or refuse the adoption

Application must therefore, be made at the county court and the judge will consider it and pass up in it.

- 3 Punishment.—Parents have a right to punish their minor children, providing they are not guilty of cruelty. Brutality is severely punished by law as a crune. The punishment must be reasonable, leaving no bruiss nor injuring the health of the child
- d Claims upon Earnings While the child is a minor parents have a right to all his earning. They can claim them of his employer. Parent, however, may free the child and allow him to callest and us his own wages. When this is once made public the parents cannot thereafter callest the child's ways.
- 5 A Runaway Child.—A child has no right to have nome without permit on of the parent; if he does he can be brought back by force. Relations or others who would keep him can be forced by law to give him up unless it can be shown that the father is brutal in his treatment of the child or is not capable.

because of drunkenness or other causes to properly care for the child.

#### OBLIGATIONS OF PARENTS

Obligation to Support.—The law requires that parents shall support their minor children. A child having property of his own does not relieve the parents from supporting him. They can, however, by applying to the court, get permission to use a part or all of the income from the child's property for his support. Beyond this the parents have no claim upon or control over the child's property.

#### CHILDREN'S RIGHTS AND OBLIGATIONS

- 1. A child can own property, over which the parents have no control, except the use of the income of the same for the support of the child, as stated above.
- 2. Where it is shown that parents are unable to support themselves the child is under legal obligations to support and care for them, at least do what he can toward such support.
- 8. If a child commits a premeditated crime he is personally liable; parents cannot be held responsible for crimes committed by their minor children
- 4. Guardian.—A guardian may be appointed over an orphan child, or the child may choose his own guardian, who in a legal sense exercises all the authority of a parent.

EANS.



## SALESMANSHIP

Skill in the art of selling goods has been reduced to a science, and schools for teaching this new science of "salesmanship," as it is catled, have been established at New York, Chicago, and other large cities in the United States.

How to Sell Goods.—The following instructions, drawn up by Mr. John A. Howland, an experienced and successful salesman, are worthy of careful study by those about to enter upon a mercantile life and by others who have thus far failed of the success they hoped for when entering upon their business career.

The Highest Class Salesman never appears to work hard to make a sale. Usually he is not a great talker. It is the clerks in cheap stores who talk hard and fast; they hustle and sweat and appear to try to corner their customers and to browbeat

them into buying. The first-class salesman is cool and easy in manner, because he has studied his art and knows just how to proceed to make a sale. The great talker may be a good salesman, but he chooses the hardest road and necessarily accomplishes less, since he spends too much energy on each customer.

Method Necessary.—The salesman who wants to pass everybody on the road must have, either consciously or unconsciously, a definite method of procedure.

How to Proceed.—Before trying to sell anything find out what the person can buy. When a man has told you just what he wants he has committed himself and he has given you a distinct advantage. In business it is the effort of each man to make the other man "come to him," and as soon as your prospective customer has told you what he wants—material, style, price, etc.—he has "come to you"; all you have to do is to fill the order. If you can do that, there is a strong presumption in favor of a sale without much further effort. Even if he changes his mind and refuses to buy the thing he asked for, you can ask once more his desires and again try to satisfy them in the required article.

Illustration.—Suppose, for example, you are selling suburban lots on a commission. You go out on the train some morning; perhaps you get to talking on the way out with some of your firm's prospective customers. Don't talk at random; try to draw out your man as to what he wants, how much he can pay, cash or in payments. All that you learn about his business, his experience or lack of it in real estate deals, his income, his savings, etc, is just so much to your advautage, because, with all this information about him and his wants, you can pick out just one lot and, ignoring all the rest, spend all your time and energy talking up its merits. If you proceed skillfully you will not have to ask him for a deposit; he will probably ask you to accept one. If he does not get as far as this you have nothing for which to blame yourself, since you have followed the only intelligent method for making a sale.

Shewing Goods at Random.—For you as a dry goods clerk to bring out goods at random, without first ascertaining just what a customer wants, shows lack of method and therefore lack of intelligence. Ten chances to one you will not strike what the person wants. You have, therefore, placed yourself at a disadvantage at the outset, lowered your own dignity, and lessened the value of your judgment in the eyes of your prospective cus-

tomer. If he is a superior man he will resent this waste of time, and feel, even if he does not display, impatience.

How Some Sales are Lost.—If you first find out what a person wants and can pay for, you escape the serious danger of showing the prospective purchaser something he or she will want but cannot pay for. Many a possible sale is lost in just this way. If you show a woman a \$30 hat who has no intention of spending more than \$12, she may be so pleased with the more expensive article that nothing cheaper will suit her. But she is unable to buy the \$30 hat; therefore she hesitates long and finally leaves the shop without buying anything. If you had first found out that she expected to pay only \$12, you might have kept the \$30 beauties out of sight and so have easily satisfied her and completed the sale. This is a kind of failure that all successful salesmen must carefully guard against. Even if you should at last bring the woman who admired the \$30 hat to the point of buying the \$12 article she could pay for, you would have wasted time and energy that you might easily have saved,

Importance of Concentration.—Another advantage in first finding out what your customer wants is that you can talk so much more forcibly than you can if you scatter your efforts. Suppose you are selling men's snirts and you say. "Here's something nice at \$2.50." The man seems to like that; he picks it up and looks closely at it while you dilate on its good qualities A minute later he says: "Well, I don't want to pay more than \$2." All you can do now is to go back to the \$2 line and say: "Well, these are nice, too," etc. Weak, isn't it? After committing yourself in favor of the more expensive grade of shirts, you have discounted beforehand all you can possibly say in favor of the \$2 article. If you want to talk effectively and convincingly, you must concentrate your attention on the one article the man can pay for.

If this rule of first finding out a customer's wants were strictly adhered to, think how much time would be saved from those terrors of the dry goods clerks, the women who are merely amusing themselves by fingering piece after piece of goods. Many times if such women were directly and courteously questioned they might admit at the start that they only wanted samples. By further inquiry as to color, weave, price, etc., think how quickly one could get rid of them, without giving offense, either.

Much Talk not Required.—Besides the direct saving in time

and energy you can effect by first getting a customer to state his wants, you save yourself a large percentage of effort and nervous strain by the procedure. After you have produced the article the man has asked for, there isn't much more for you to do; a few judiciously chosen words of admiration and encouragement at most. The man who has thought out his method beforehand does not need to make any great effort or talk much in order to make a sale.

Sell, or Know Why You Fail.—It is, of course, absolutely impossible to make a sale for every inquiry, but what an immense satisfaction it is to know accurately—as you can know if you follow this method—just when the failure to make a sale was not your own fault and just when it resulted from your own carelessness!

Your confidence and consequently your effectiveness constantly increase as you reduce your work to a systematic procedure. You always "know where you are at," you can note your own progress, and there is with such a method far less cause for possible discouragement. There is nothing so helpful as knowing the cause of each failure you make; for if you know your weak point you can guard against it next time.

The Only Way.—This cautious method of always finding out what a prospective customer wants before taking your goods to him is the only way to become a really high class salesman.

#### SHIPPING

Shipping is the transporting of goods by water. Ship-owners are common carriers, those who send goods are shippers. Owners sometimes charter their vessels to others, who then as charterers take the owner's place.

As common carriers, ship-owners or charterers are subject to all the laws that govern common carriers on land.

Exportation.—When goods are shipped abroad, or exported, they have to be *cleared* at a custom-house. This is done by the shipper filling out and swearing to what is called a *shipper's manifest*, containing a description of the goods shipped. A bill of lading is then given the shipper as in inland shipments.

A Bill of Lading is a document delivered by a master or owner of a vessel, or the officer of a transportation company, and

signed by such parties as an acknowledgment that the goods have been received for transportation.

The bill constitutes the contract between the shipper and the carrier Three copies of the bill are made out; one is kept by the shipper, another by the party transporting the goods, and the third is sent to the person to whom the goods are directed.

When one of the bills has been used the others become void. The master usually makes certain exceptions in writing; as, "contents unknown" of loose goods; "not accountable for leakage or breakage" of liquids in bottles; "not accountable for leakage" of liquids in casks; and "pieces in dispute," if the shipper's list of articles differs from the ship's account. The master also makes notes of any goods which seem to be in bad condition, lest he should be compelled to make good or pay for any defect, as the bill of lading begins by stating them to be "shipped in good order and well conditioned."

Transfer of Bill of Lading.—The bill of lading stands for the property itself, and carries ownership with it. The consignee upon receiving it becomes the owner of it, and can assign the bill of lading and, of course, the right of the goods with it to another party.

Ship's Manifest.—With the aid of the manifests furnished by the shippers the ship's master makes out the ship's manifest, containing the name and tonnage of the vessel, the place to which it belongs, and the name of the master, besides a regular list of the ship's cargo, giving the mark and number of each separate package, the names of the persons by whom the different parcels of goods are shipped, and those of the persons to whom they are consigned, and a specification of the quality of the goods contained in each package. This manifest must be signed by the master of the ship, and he cannot clear for a foreign port without it. Within a certain number of hours after arrival at any port and before "bulk is broken," this manifest must be delivered by the ship's master to the customs officer of the port.

If the goods perish without fault of the master of a ship, the freight must be paid, otherwise the master or owner of a ship is liable for damages.

Loss of Injury.—As common carriers, owners of vessels or charterers are responsible for any loss or damages of the goods, whether caused by negligence of agents, master or crew on the voyage.

But, as on land, there are exceptions, namely: Carriers by sea are not responsible for damages which occur through some extraordinary peril of the sea, such as storms or piracy or fire at sea.

General Average.—A loss occurring to the cargo when in order to save the ship in a storm a part of it must be thrown overboard is called General Average.

The law is that if any part of the vessel or cargo is voluntarily sacrificed to save the rest, all the owners of both vessel and cargo must bear the loss in proportion to their interest.

Three conditions, however, are necessary to make it a general average: 1. The sacrifice must be necessary. 2. It must be made voluntarily. 3. It must succeed, i. e., the rest of the vessel must be saved.

Salvage relates to property abandoned at sea. Any one saving property which he finds abandoned at sea is entitled to large compensation for his services. This compensation is called salvage and is intended to encourage such services, which are usually attended with danger.

The amount of salvage varies according to the difficulty and danger and may be one half of the value of the vessel and cargo saved. All who take part in the rescue, master, crew and owner, share in the salvage. If aid is rendered to a vessel in distress salvage is allowed.

#### Form of Bill of Lading

New York, December 10, 1910.

Shipped in good order, and well conditioned, by James C. Hanton.....
on board the ship Goodspeed......

Marked as follows: Sylvester Clyde, Rio Janeiro. being marked and numbered as in the margin, and are to be delivered in the like order and condition at the port of Rio Janeiro........(the dangers of sea only excepted) unto Sylvester Clyde.........or his assigns, he or they paying freight for the said cases, with ten cents primage and average accustomed.

In witness whereof I have affirmed to three bills of lading, all of this tenor and date; one of which being accomplished the others to stand void.

HENRY R. SANDFORD.

Contents and weight unknown.

[In the above form, Hanton is the shipper or consignor, Clyde the consignee, and Sandford the carrier. It might be signed by the master (Bollman) instead of by Sandford.]



STATE STREET, CHICAGO

# HOW TO INVEST SMALL SAVINGS SUCCESSFULLY

To persons who desire to invest their savings in a safe and profitable manner, the following suggestions and established principles pertaining to such business should

be carefully considered.

A Good Broker Necessary.—In the first place, it is essential that the investor should have a good broker. How can he become acquainted with one? He may be recommended to one by a friend, and probably this is the safest way, because there are brokers and—brokers. If the investor writes to the Secretary of the Stock Exchange he will simply get a list of brokers, no help being afforded him as to the particular members who will transact small orders. For it must be remembered that, as a rule, the inside broker does not care for small orders. On account

of this fact the outside broker flourishes exceedingly, as he is prepared to execute all kinds of orders, small and great; sometimes he is an honest man, sometimes he is not, and the same may be said of the inside broker. The question of getting into touch with the right kind of a man is therefore all-important.

Ability to Read the Financial News Necessary.—The next thing is that the investor should be able to read intelligently the news published in the financial columns of the daily press. This is explained in the Financial Guides, to be obtained at the book-stores.

A Knowledge of the Guiding Principles Necessary.—Having secured the right kind of a man and learned how to read the financial news, the next thing should be a mas-

tery of certain guiding principles.

The small investor should not touch mines of any kind; he should confine himself to industrial schemes, and in so doing give his attention to the man and the figures. The directorate of a company is exceedingly important. He should ascertain all he can about their past history in connection with business, and especially the capacity of the managing director for his special duties. The great secret of the success of some of the industrial companies has been the expert management from beginning to end.

Study of Accounts Necessary.—Next the investor should study the accounts, going through the balance sheets for various years. He may say that he has not time, and perhaps not an eye for figures, in which case he will have to trust to the judgment of others, and that is where the

services of a really good broker are invaluable.

All these necessary features of sound investment go to show that you cannot make money in this way without working hard; but money can be made by watchfulness and care. The investor should so train his own judgment that he need not be obliged to follow the advice

of "friends" nor the ipsi dixit of the broker.

Established Principles.—The following are some of the established principles of investment which are well worthy of attention: (1) Don't buy shares in a company which is about to pay big dividends. (2) Don't be led away by showy prospectuses, big names, and a lot of advertising. Know the man, the class of business, and the trade conditions. (3) Don't invest in a company with a bad history, however attractive the new regime may be. Follow lucky men and companies with good records. (4) Ask: Is there a demand for the products this company deals in? That'a a question which determines good investments from mero speculations. (5) Note the startling changes in prices and trace them to their origin; in a word, know what you are doing."

#### TRADE AND SPECULATION

The Principles Underlying Business Success.

Trade is te business of buying and selling for gain or

profit in the ordinary course of traffic.

Speculation is buying and selling, not in the ordinary course of traffic for the continuous marketing of commodities, but to hold in the expectation of selling at a profit upon a change in values or market rates.

In order to be thoroughly successful in business a merchant must have a fair knowledge of the basic prin-

ciples of both trade and speculation.

#### Basic Principles of Successful Trade.

- 1. A knowledge or judgment of the value of goods is necessary. Without such knowledge it is impossible for one to do justice to his customers and to himself.
- 2. Cash Capital To Start With Is Required.—No one is justified in commencing a business without the moderate capital usually required to carry it on, trusting to accommodations and credit for success. It is asserted by some authorities that four-fifths of the men who are wealthy commenced business on borrowed capital. may be true, but it was actually capital, borrowed for no definite period, but for such length of time that it could be paid out of the profits of the business and not from the sales of stock. No one who has tried doing a business without a suitable capital, even if he has succeeded, will advise another to attempt it. It involves an amount of anxiety, a degree of labor, embarrassment, and hazard, which is painful to reflect upon. To do a business altogether on credit requires a fortunate combination of circumstances to make it successful, that no prudent man would predict.

The amount of credit that will be issued to a prospective merchant depends upon the amount of capital he has to invest. The greatest mistake a beginner could make would be to the himself up with an overstock or with an abnormal expense for fixtures and other opening incidents which would prevent him from buying his merchandise on a cash basis, or, to be more explicit, to do anything that would prevent him from taking his cash discount promptly

and regularly.

3. The selection of the right location is important. In a city or town it usually is best to choose a location in the midst of those engaged in the same business. There is

where customers expect to find such trade, and there the mass of them will go to buy. "A poor location," says a recent writer on this subject, "can bring about disaster quicker than can anything else. The biggest concern (shoe store) in State Street (Chicago) found the sledding extremely tough when they first opened. They did practically no business. One day they realized they had started in on the wrong side of the street. They moved to the opposite side and the difference in location was noticeable from the start. Business grew by leaps and bounds. Today these people are representative of the retail shoe business in Chicago. A few months on the wrong side would have driven them into the bankruptcy court."

4. Locality Governs Stock Selection.—"The first thing to be considered in buying a stock of goods, writes Mr. W. F. Hypes, General Sales Manager for Marshall Field & Co., in The Workers' Magazine, "is the class of merchandise that will be in demand in the locality in which one expects to engage in business.

"There is a most appreciable variance in the different sections of the country as to the character of merchandise used by the consumer. Some articles that sell well in Ohio do not command any sale at all in Washington or Oregon. The young man who has clerked in a retail dry goods store and learned the business in a general way seldom realizes this. To him, for instance, lingerie is lingerie the world over and he figures that a bit of muslin should sell as well in the far west as it does in the middle states and in the east."

5. A reputation for dealing in the best lines of merchandise procurable must be firmly established. This is the only policy that will build up a permanent trade. "To buy merchandise of a great number of houses," says the same authority, "is not a good business move, for even the merchant of many years' experience to make. Therefore, it is even more disadvantageous to the beginner to take such a step. He perhaps might save a few dollars in buying his stock indiscriminately, but in the long run he would find himself burdened with a badly assorted stock, and in a short time his shelves would present such a

conglomerate mass of odds and ends that his stock, if forced to a sale for any reason, would bring a low price. In other words, the man who will establish certain lines and fill in on those lines as occasion demands, confining himself as closely as practicable to such a policy, always will have a representative stock in such good condition that he can in an emergency realize almost 100 cents on the dollar."

6. Display and Publicity are Absolutely Essential.— Every retail merchant should make an attractive display of his wares in his shop windows. Persons passing in the street may see just the articles they want to purchase and be reminded thereby of this want and become your customer at once, or they may be induced to seek within for what they want in the line displayed.

"The old habit of having merchandise tucked away under counters and in stock boxes long ago became obsolete. The great increase in the volume of sales enjoyed by merchants today is directly attributable to the effective displays in the windows of retails stores as well as to the educating of the buying public—especially the women contingent—has received through the medium of these displays and through reading the up-to-date fashion journals."

The Importance of Advertising .- But the most efficient modern method of getting customers is by advertising. To the merchant or dealer who is sure of his ability to fill orders on the most favorable terms, the attainment of an adequate publicity is the matter of primary concern. If his circle of trade is properly the county in which he lives, then he should take effectual measures to let every family in the county know what he sells, and on what conditions. It is idle to speak of the cost as an impediment. He might as well object to the cost of sheltering his goods from bad weather, protecting them from thieves, or dealing them out to customers. All the other cost of his business is incurred without adequate motive or return, so long as the essential element of his business is neglected or scrimped. If his location and his stock only entitle him to expect the custom of his own town

and neighborhood, then he should incur the expenses of fully informing that locality. Just so with the wholesale merchant who aspires to a custom co-extensive with his country. If he is prepared to satisfy so wide a demand on favorable terms, the expense of apprising those whom he desires for customers of the nature of his business. the character of his stock, the range of his prices, and the reasons why he should be dealt with, is one which he cannot refuse to incur without gross incompetency and ruinous prodigality. By thus refusing, he increases his expenses for rent, lights, fuel, assistance, etc., from onehalf per cent to three, five and in some cases ten per cent on his aggregate sales, and renders it morally impossible that he should sell at a profit, and at the same time sell as cheaply as his more enterprising and capable rivals. In effect, he confesses defeat and incapacity, and retreats to the rear rank of his vocation.

Some men who know they should advertise are yet so narrow as to confine their advertisements to journals of their own creed or party. If they do not choose to trade with any but men of like faith, this is wise; but if they desire to have the whole public for customers, it is otherwise.

#### Basic Principles of Successful Speculation.

1. Fluctuations in values affect the interests of merchants engaged in regular trade. It is necessary therefore, in order to be thoroughly successful in mercantile business, to study statistics and give note to important political and commercial changes. "Take a commodity," advises an experienced and successful merchant, "and find out the average price of a number of years, excluding from consideration extreme cases, and buy when the price has fallen below the average, or, in other words, when the commodity has become cheap. If the harvest after all be bad, you gain; if otherwise, it does not follow that you are to lose. Sell, and replace your old stock—buy a new one."

"Everybody is aware," says Mr. Roderick H. Smith, in his masterly treatise on The Science of Business, "how. much the interests of the mercantile classes and other classes are affected by fluctuations in value. Fortunes are made or lost by the rise or fall in price of a commodity of which a merchant may have a large supply. But the merchant is affected not only by the price of articles in his possession, but by the price of articles in the possession of others. He owes a large number of people and a large number of people owe him. His ability to pay depends upon the prices which his customers receive for the produce or goods they have in their possession. Hence there is hardly a fluctuation in the price of any article whatsoever that does not influence to some extent the prosperity of the mercantile classes at large, in addition to the particular influence it may exert upon the fortunes of a particular individual.

"In society as we see it today, not only each man is dependent upon other men, but each class of men upon all other classes, and whatever injures one class of the community effects upon all other classes a like injury. The interests of each are bound up in the interests of all, and the interest of all is bound up in the interest of each."

- 2. There are two qualities which principally fit any commodity for speculation: First, frequency in the change of its price, and secondly, the extent of that change; it being obvious that alternation—a fall as well as a rise—is necessary to the purpose of the speculator, and the extreme of prices is that which he will chiefly look to or in which he will seek his gain.
- 3. The price of a commodity depends upon supply and demand. When the demand is greater than the supply the price of the commodity rises, and when the supply is greater than the demand the price falls. Speculation, therefore, is in fact merely an exception in business arising out of the derangement of trade or impossibility of adjusting the supply to the demand, yet so far useful to, or coming in aid of trade, as it has a tendency to produce readjustment; to prevent extremes in price, as well that which is ruinously low as that which is excessive; and to prevent dearth or famine. For if a person buys when prices are low, this has a tendency to raise the price;

as when he brings out a store, and sells when prices are high, it has to lower it.

4. Nerve Is Necessary to Success.—To be a good merchant or speculator, as to be a good general, nerve is necessary, and the one as well as the other must often act in the face of appearances. He must believe that the sun will always rise again after it sets and always act contrary to what the generality of men believe to be good judgment. He must buy when no other person will buy and sell when no other person will sell.

"Trade is steady and uniform," and can be carried on at all times; speculation, on the other hand, only occasionally, or when opportunity offers. There is, therefore, a peculiar certainty which belongs to the former which does not belong to the latter, and this certainly is the certainty of employment or the scope for it. The time also required to make a speculation is not to be forgotten, during which it may be conceived money will often be made in the regular course of trade. Yet, without doubt, occasionally very large sums are made by opportunities which it requires but a very ordinary share of sagacity to take advantage of.

If a person be inclined to make speculation a business, it would be best to invest only part of his capital in any one commodity, so to have many speculations affoat at the same time, different in their stages—some, if possible, always commencing, and others falling in or terminating. By these means it may be brought more nearly to the nature of a regular trade, in which not only is a person's whole capital with some certainty engaged, but an average established, rendering it more uniform and safe. And so considered, it matters not to a speculator whether prices fall or rise. When they fall he is to buy, when they rise, he is to sell. His only difficulty, when they stand still. Nor is this to be confounded with wholesale trade strictly understood, which is a different thing, and consists in supplying set customers for a regular profit."

5. Successful Speculators and Merchants Must Be Students of Social Science.—"Without knowing it," says the

eminent scientist, Herbert Spencer, "men who look at the state of the money-market, glance over prices current, discuss the probable crops of corn, cotton, sugar, wool, silk, with the chances of war, and from all these data decide on their mercantile operations, are students of social science: empirical and blundering students, it may be, but still students, who gain the prizes or are plucked of their profits, according as they do or do not reach the right conclusion. Not only the manufacturer and the merchant must guide their transactions by calculations of supply and demand, based on numerous facts, and tacitly recognizing sundry general principles of social action; but even the retailer must do the like; his prosperity very greatly depending upon the correctness of his judgments respecting the future rates of consumption. Manifestly. all who take part in the entangled commercial activities of a community are virtually interested in understanding the laws according to which those activities vary."

The correctness of Mr. Spencer's position is forcibly illustrated in the following extract from The Science of "These truths drawn from a wide class of business facts, are of value to each business man. The wholesale dealer, who has on hand a large stock of goods bought at constantly increasing prices, must see to it that, at the turn of affairs, he is not left with a supply on his hands for which there is no call, and on which he will be obliged to sacrifice. The retail dealer who invests his savings in a store, and stocks it with such articles as the laborers need, must, if he lives in a town whose principal industry is the iron trade, time his affairs to the fluctuations of the business. The speculator who, in the assurance born of ignorance, endeavors to bull the stock market during the years of depression, will see his profits melt slowly away; and even a rising market, the wise must remember, will not last forever. The manufacturer must intelligently foresee the trend of future events, or suffer the consequences of his ignorance. clerk, the lawyer, the doctor and even the clergyman, are affected, both in their salaries and their fees, by the course of the business world."

#### BUSINESS ABBREVIATIONS

AcctAccount	InvtInventory.
AdvtgAdvertising.	J. or JourJournal.
Autry Advertising.	J. P Journal page.
AgmtAgreement.	J P Journal page.
AgtAgent.	L. B Letter Book.
AmtAmount.	lbsPounds.
And Amida	L. F Ledger Folio.
ArtArticle.	L. F Leager Fono.
B, or $Bk$ ,, Bank.	MdseMerchandise.
BalBalance.	Memo, or mem. Memorandum.
Dit	Mols Molasses.
BblBarrel.	MOIS Molasses.
B. B Bill-book or	NatNational.
Bank-book.	N. B (Nota Bene) Take
D Em Dill of Evolungo	Notice
B. Ex Bill of Exchange. B.P.orBillsPay. Bills Payable.	NctWithout deduc-
B.P.orBills Payable.	Net Without deduc-
B.R.orBillsRec. Bills Receivable.	tion.
Po't Rought	O. I. BOutward Invoice
Bo't Bought. Bush Bushel.	D. T. D
Bush Bushel.	P. or pPage. [Book.
$C. \text{ or } C'l. \ldots$ . Cent.	PaytPayment.
Cash Cashier.	PdPaid.
Cusic Casilici.	The The alarma
C. B Cash Book.	PkgPackage.
CerCertificate.	Per or prBy the.
ChgdCharged.	per ct (Per centum) By the
ChyaCharged.	
CkCheck	hundred.
Co Company.	P. & L Profit and Loss.
C. O. D Collect on Delivery.	PrPalr.
Commission	PremPremium.
ComCommission	
Con. or Const Consignment.	prox (Proximo) The next
Cr Creditor.	month.
Cont Hundred weight	Ps Piece or Pieces.
Cwt Hundred weight.	18 I lece of 1 leces.
D. B Day Book.	P. C. B Petty Cash Book.
Dep. B Deposit Book.	RecdReceived.
Def Droft	R. R Railroad.
DftDraft.	C. D. C. L. D. C.
Dis Discount.	S. B Sales Book.
Do. or do(Ditto) The same.	$S. S. \dots Steamship.$
DozDozen.	ShiptShipment.
Doz	C4 D44 Cimba Dmath
DrDebtor.	St. DftSight Draft.
Ds. or dsDays.	StgSterling.
eaEach.	SundsSundries.
77 77	m m m
$E. E. \dots Errors$ excepted.	Tr. or Trans Transaction.
E. & O. E Errors and omis-	ult(Ultimo) The last
sions excepted.	month.
The Theat Theater	(Widelines) To wise
Ex. or Exch Exchange.	viz(Videlicet) To wit;
ExpExpense.	namely.
favFavor. F.B. EForeign Bill of	vs(Versus) Against. YdsYards.
E D E Veneign Dill of	T'do T'orda
F.B. E Foreign bin of	1 ds larus.
For'dForward.	SDollar.
For'd Forward.	¢Cents.
Et on ft Foot on Foot	£Pounds Sterling.
Ft. Of It FOOL OF Feet.	E Founds Sterring.
GalGallon.	dPence.
GuarGuarantee.	At or to
Hdkf	%Account.
The desired and the state of th	0/
HhdHogshead.	7c
HundHundred.	#(Ditto) The same.  Number.
I. or InvInvoice.	# Number
I D Invoice Pool-	1/ Choole Morle
I. BInvoice Book.	VCheck Mark.
InsInsurance.	11One and 1 fourth.
inst (Instant) The pres-	12 One and 2 fourths.
	13 One and 3 fourths
ent month.	13One and 3 fourths.
Insol Insolvency.	IntInterest.

## TRUSTS AND MONOPOLIES

#### THE SHERMAN ANTI-TRUST LAW

Sections 1 and 2 of the anti-trust law approved July 2, 1890, and commonly called the "Sherman law," forbid combinations and monopolies in undue restraint of interstate or foreign trade and prescribes punishment by fine or imprisonment or both for any violation thereof. What constitutes an undue restraint of trade is a mooted question.

Illegal Combination in Restraint of Trade Defined.—In the case of the United States vs. The International Harvester Co., decided in favor of the Government by the U. S. District Court in Minnesota, August 12, 1914, it was held that "there is no limit under the American law to which a business may not independently grow, and even a combination of two or more businesses if it does not unreasonably restrain trade, is not illegal; but it is the combination which unreasonably restrains trade that is illegal."

The Trusts which dominate the business world of to-day are the legitimate descendants of the old English monopolies.

Definition.—The old time monopolies were grants by the crown securing to one or more persons an exclusive right to carry on some particular branch of trade or manufacture, while the modern trusts are organizations formed by the combination of competing firms, which, independently of any grant of a sovereign or State, exert the right and power of controlling the entire business of the particular branch of trade or manufacture in which they are engaged.

History.—In the sixteenth century the people of England complained of the extortions of the monopolies which had been granted by the crown and the whole system was attacked in Parliament in 1597. No restraining law was passed, because of the personal solicitation of the queen, but in 1601 Parliament took up the subject and a list of the most objectionable monopolies was read in the House of Commons. One member of that body caused a sensation at the time by asking, "Is not bread among the number?"

In 1623 the so-called statute of monopolies was passed, which provided that all monopolies should be illegal, except such as might be granted by Parliament, the only exceptions being the control of new manufactures and inventions. For a time this law put an end to the formation of monopolies, which have now become common under the name of "trusts" in nearly every civilized country of the world.

English Trusts.—In England, despite the industrial energy of the country and its extensive commerce, the trust system has not made the advance it has in some other countries in Europe or in America.

German Trusts.—There are many trusts in Germany. In such industries as brick, stone, plaster of paris, glue, mortar and the like there are about fifty trusts of which a recent writer says: "Of these trusts—in the widest sense of the word—it may be said that by hindering unlimited underbidding they have proved an actual blessing to the trades concerned, without becoming a menace to the public welfare." The same writer says: "The activity and extension of trusts in Germany has not yet led to serious apprehensions or open hatred on the part of large portions of the population, as now appears to exist in the United States. Although aiming primarily at the establishment of better prices, German trusts cannot be accused of the exploitation of the public at large or of the working classes. As regards the establishment of prices, also, the trusts have hitherto displayed a wise moderation."

Russian Trusts.—In Russia, while the courts do not recognize the formation of trusts as legal, strong industrial organizations control many of the commodities. Iron, brandy, sugar, petroleum and a vast number of other products are in the hands of monopolies which oppress the people. Not only is no resistance offered them by the government, but many of them have been organized under the protection and with the assistance of the government.

French Trusts.—Perhaps in no country in Europe has the trust system assumed the proportions it has acquired in France. The iron trade, the chemical industries, the bottle-glass, sugar refining, zinc and many other important lines of industry are controlled by trusts, and have been so for many years.

American Trusts.—In the United States trusts are of comparatively recent origin, but have increased with such rapidity that to-day they outnumber those of all other countries of the world combined. In Moody's Manual of Corporation Securities it is stated that there are in this country about 850 trusts or great industrial combinations, with a total capital of \$9,000,000,000, and that the railroad consolidations would increase this to \$15,000,000,000,000 of outstanding capital.

Besides these gigantic industrial trusts there are innumerable price-fixing and profit-sharing pools in nearly every industry of the country.

Natural Monopolies, such as railroads, street railways, gas, electric light, and water companies, are not classed as trusts, because they are not composed of naturally competing concerns. Consolidations and price and rate-fixing agreements in these industries exist in nearly every city in the country.

Stringent anti-trust acts have been adopted by the general government and most of the States, but owing to the restrictions these acts have experienced at the hands of jurists, most of them have practically become dead letters. The American trusts having the largest capitals are as follows:

## A List of Fifteen of the Principal American Trusts

Amalgamated Copper Co. Ne American Can Co Ne American Sugar Refining Co. Ne American Smelting & Refining Co. Ne American Tobacco Co Ne Continental Tobacco Co Ne Corn Products Co Ne Distilling Co. of America Ne International Harvester Co. Ch International Merchant Marine Co. Ne Standard Oil Co Ne United Copper Co. Ne U. S. Leather Co. Ne	ation. Capital. w York 153,888,000 w York 41,233,300 w York 50,000,000 w York 45,000,000 w York 45,000,000 w York 48,846,100 w York 44,514,425 w York 44,596,118 icago 120,000,000 w York 97,500,000 w York 97,500,000 w York 45,000,000 w York 62,882,300 w York 62,882,300
U. S. Leather Co No.	ew York 62,882,300 ew York 508,495,200 ttsburg 156,800,000
Carnegie Co. (brock, coar, ore.	

## PARLIAMENTARY RULES AND USAGES

Trace each motion to its respective references and you master at a glance the intricacies of parliamentary usages, comprising some three hundred points of order.

of order.
Forms in which questions may be put
Questions of precedence of questions
Motion to withdraw a motion a. e. g. i. m. n. p.
To take up a question out of its proper ordera. e. g. i. l. n. p.
Motion to take from the tablea. e. g. k. l. n. b.
Motion to suspend the rules
To substitute in the nature of an amendmentc. e. h. i. m. n. p.
Motion to make subject a special order



#### INDEPENDENCE HALL, 1776.

(In the room to the left, on entering the hall, the Declaration of Independence was signed.)

Question whether subject shall be discusseda. e. g. i. l. o. q.
Motion that committee do not risea. e. g. j. m. n. p.
Motion to refer a question
Motion to reconsider an undebatable questiona. e. g. j. m. n. r.
Motion to reconsider a debatable question c. f. g. j. m. n. p.
Reading papers
Questions of privilege
Questions touching priority of business a. e. h. i. m. n
Motion for previous question a. e. g. i. l. n. p.
Motion to postpone indefinitely
Motion to postpone to a definite timed. e. h. i. m. n. p.
Motion for the orders of the day a. e. g. i. m. o. q.
Objection to consideration of question a. e. g. i. l. o. q.
Motion to limit debate on question,
Motion to lay on the table a. e. g. k. m. n. p

Leave to continue speaking after indecoruma. e. g. i. m. n. p.
Motion to extend limits of debate on question a. e. h. i. m. n. p.
Motion to commit
Motion to close debate on question a. e. h. i. l. n. p
Call to ordera. e. g. i. m. o. q.
Motion to appeal from Speaker's decision generallyc. e. g. i. m. n. q.
Motion to appeal from Speaker's decision re indecoruma. e. h. i. m. n. q.
Motion to amend the rulesc. e. h. 1. l. n. p.
Motion to amend an amendmentc. e. g. i. m. n. p.
Motion to amend
Motion to determine time to which to adjourn b. c. h. i. m. n. p.
Motion to adjourna. e. g. j. m. n. p.

#### SERENS OF THE DECLARATIONS OF INDEPENDENCE.

John Hancotk,
Samuel Adems,
Robert Treat Paine,
William Whipple,
Matthew Thorston,
William Ellery,
John Har.
John Har.
John Har.
John Har.
John Har.
John Har.
John Morron,
George Clymer,
Jemes Smith,
George Taylon,
George Roed,
Thomas Stonell,
Ladded Henry Lee,
Carter Braston,
William Hooper,
Joseph Hewes,
William Hooper,
Joseph Hewes,
Button Gemmett,
Lyman Hall,
George Walton



INDEPENDENCE HALL, 1876.

## ----

Ethordge Gerry,
Stephen Hopkun,
Josiah Bartlett,
Roger Sheman,
Francis Lewis,
Philip Livingston,
Diver Wojeort,
William Williams,
Samuel Huntington,
Lewis Horris,
Richard Stockson,
A. Clark,
Robert Morris,
Benjamin Rush
Fengamin Rush
Fengam

- a. Question undebatable; sometimes remarks tacitly allowed.
- b. Undebatable if another question is before the assembly.
- c. Debatable question.
- d. Limited debate only on propriety of postponement.
- e. Does not allow reference to main question.
  f. Opens the main question to debate.
- Opens the main question t
   Cannot be amended.
- h. May be amended.
- i. Can be reconsidered.
- i. Cannot be reconsidered.
- k. An affirmative vote on this question cannot be reconsidered.
- Requires two-third vote, unless special rules have been enacted.
   m. Simple majority suffices to determine the question.
- n. Motion must be seconded.
- o. Does not require to be seconded.
- p. Not in order when another has the floor.
- q. Always in order, though another may have the floor.

- T. May be moved and entered on the record when another has the floor, but the business then before the assembly may not be put aside. The motion must be made by one who voted with the prevailing side, and on the same day the original vote was taken.
- 1. Fixing the time to which an adjournment may be made; ranks first.
- 2. To adjourn without limitation; second.
- 3. Motion for the Orders of the Day; third.
- 4. Motion to lay on the table; fourth.
- 5. Motion for the previous question; fifth.
- 6. Motion to postpone definitely; sixth.
- 7. Motion to commit; seventh.
- 8. Motion to amend; eighth.
- 9. Motion to postpone indefinitely; ninth.
- 10. On motion to strike out words, "Shall the words stand part of the motion?" unless a majority sustains the words they are struck out.
- 11. On motion for previous question the form to be observed is. "Shall the main question be now put?" This, if carried, ends debate.
- 12. On an appeal from the chair's decision, "Shall the decision be sustained as the ruling of the house?" The chair is generally sustained.
- 13. On motion for Orders of the Day, "Will the house now proceed to the Orders of the Day?" This, if carried, supersedes intervening motions.
- 14. When an objection is raised to considering question, "Shall the question be considered?" objection may be made by any member before debate has commenced, but not subsequently.

## 

long		5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
8	1.	57	2.14	2.79	3.53	4	5	6	7	8	10	11	12	14	16	17	19
9	1.	76		3,14		5	6	7	8	9	11	12	14	16	18	20	22
10	11.	96	2.67	3.49	4.42	5	7	8	9	10	12	14	16	18	20	22	24
11	2.	16		3.84		6	7	8	10	12	13	15	17	19	22	24	26
12	2.			4.19		6	8	9	11	13	15	17	19	21	24	26	29
13	2.	55		4.54		7	9	10	12	14	16	18	20	23	26	28	31
14	2.			4.89		7	9	11	13	15	17	19	22	25	28	31	34
15	2.		4.05	5.24	6.63	8	10	12	14	16	18	21	23	26	30	33	36
16		14		5.58		9	11	12	14	17	20	22	25	28	32	35	38
17		33	4.54	5.93	7.51	9	11	13	16	18	21	24	27	30	33	37	41
18		53	4.81	6.28	7.95	10	12	14	16	19	22	25	28	32	35	39	43
19		73		6.63		10	13	15	17	21	23	27	30	33	37	41	45
20	3.	92.	5.34	6.98	8.84	11	13	16	18	21	25	28	31	35	39	44	48
T24 /																	
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Ft.	Dia	Dia	Dia	Dia	Dia		Dia	Dia	Dia	Dia	Dia	Dia		Dia	Dia	Dia	Dia
long	22	23	24	25	26	27	28	29	30_	31	32	33	34	35	36	37	38
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long 8 9	21 24	23 23 26	24 25 28	25 27 31	26 29 33	32 36	28 34 38	29 37 41	39 44	31 42 47	32 45 50	33 48 53	34 50 57	35 53 60	36 57 64	37 60 67	38 62 70
8 9 10	21 24 26	23 23 26 29	24 25 28 31	25 27 31 34	26 29 33 37	32 36 40	28 34 38 43	37 41 46	39 44 49	31 42 47 52	32 45 50 56	33 48 53 59	34 50 57 63	35 53 60 67	36 57 64 71	37 60 67 75	38 62 70 79
8 9 10 11	21 24 26 29	23 26 29 32	24 25 28 31 35	25 27 31 34 37	29 33 37 41	32 36 40 43	34 38 43 47	37 41 46 50	39 44 49 53	31 42 47 52 57	32 45 50 56 61	33 48 53 59 65	50 57 63 69	53 60 67 73	36 57 64 71 77	37 60 67 75 82	38 62 70 79 86
8 9 10 11 12	21 24 26 29 32	23 26 29 32 34	24 25 28 31 35 38	25 27 31 34 37 41	29 33 37 41 44	32 36 40 43 47	34 38 43 47 51	37 41 46 50 55	39 44 49 53 58	31 42 47 52 57 62	32 45 50 56 61 67	33 48 53 59 65 71	50 57 63 69 76	53 60 67 73 80	36 57 64 71 77 85	37 60 67 75 82 90	38 62 70 79 86 94
8 9 10 11 12 13	21 24 26 29 32 34	23 26 29 32 34 37	25 28 31 35 38 41	25 27 31 34 37 41 44	29 33 37 41 44 48	32 36 40 43 47 51	28 34 38 43 47 51 56	37 41 46 50 55 60	39 44 49 53 58 63	31 42 47 52 57 62 68	32 45 50 56 61 67 72	33 48 53 59 65 71 77	34 50 57 63 69 76 82	53 60 67 73 80 87	57 64 71 77 85 92	37 60 67 75 82 90 97	38 62 70 79 86 94 102
long 8 9 10 11 12 13 14	21 24 26 29 32 34 37	23 26 29 32 34 37 40	25 28 31 35 38 41 44	25 27 31 34 37 41 44 48	29 33 37 41 44 48 52	32 36 40 43 47 51 55	28 34 38 43 47 51 56 60	37 41 46 50 55 60 64	39 44 49 53 58 63 68	31 42 47 52 57 62 68 73	32 45 50 56 61 67 72 78	33 48 53 59 65 71 77 83	50 57 63 69 76 82 83	53 60 67 73 80 87 94	36 57 64 71 77 85 92 99	37 60 67 75 82 90 97 105	38 62 70 79 86 94 102 110
8 9 10 11 12 13 14 15	21 24 26 29 32 34 37 40	23 26 29 32 34 37 40 43	24 25 28 31 35 38 41 44 47	25 27 31 34 37 41 44 48 51	29 33 37 41 44 48 52 55	32 36 40 43 47 51 55 59	28 34 38 43 47 51 56 60 61	37 41 46 50 55 60 64 69	39 44 49 53 58 63 68 73	31 42 47 52 57 62 68 73 78	32 45 50 56 61 67 72 78 84	33 48 53 59 65 71 77 83 89	50 57 63 69 76 82 83 95	53 60 67 73 80 87 94 100	36 57 64 71 77 95 92 99 106	37 60 67 75 82 90 97 105 112	38 62 70 79 86 94 102 110 118
8 9 10 11 12 13 14 15 16	21 24 26 29 32 34 37 40 42	23 26 29 32 34 37 40 43 46	24 25 28 31 35 38 41 44 47 50	25 27 31 34 37 41 44 48 51 55	26 29 33 37 41 44 48 52 55 59	32 36 40 43 47 51 55 59 63	28 34 38 43 47 51 56 60 64 68	37 41 46 50 55 60 64 69 73	39 44 49 53 58 63 68 73 78	31 42 47 52 57 62 68 73 78 83	32 45 50 56 61 67 72 78 84 89	33 48 53 59 65 71 77 83 89 95	34 50 57 63 69 76 82 83 95 101	53 60 67 73 80 87 94 100 107	36 57 64 71 77 85 92 99 106 113	37 60 67 75 82 90 97 105 112 119	38 62 70 79 86 94 102 110 118 126
8 9 10 11 12 13 14 15 16 17	21 24 26 29 32 34 37 40 42 45	23 26 29 32 34 37 40 43 46 49	24 25 28 31 35 38 41 44 47 50 53	25 27 31 34 37 41 44 48 51 55 58	26 29 33 37 41 44 48 52 55 59 63	32 36 40 43 47 51 55 59 63 68	28 34 38 43 47 51 56 60 61 68 73	29 37 41 46 50 55 60 64 69 73 78	39 44 49 53 58 63 68 73 78 83	31 42 47 52 57 62 68 73 78 83 89	32 45 50 56 61 67 72 78 84 89 95	33 48 53 59 65 71 77 83 89 95 101	34 50 57 63 69 76 82 83 95 101 107	35 53 60 67 73 80 87 94 100 107 114	36 57 64 71 77 85 92 99 106 113 121	37 60 67 75 82 90 97 105 112 119 127	38 62 70 79 86 94 102 110 118 126 135
8 9 10 11 12 13 14 15 16 17 18	21 24 26 29 32 34 37 40 42 45 48	23 26 29 32 34 37 40 43 46 49 52	24 25 28 31 35 38 41 44 47 50 53 57	25 27 31 34 37 41 44 48 51 55 58 61	26 29 33 37 41 44 48 52 55 59 63 66	32 36 40 43 47 51 55 63 68 72	28 34 38 43 47 51 56 60 64 68 73 77	29 37 41 46 50 55 60 64 69 73 78 82	39 44 49 53 58 63 68 73 78 83 83	31 42 47 52 57 62 68 73 78 83 89 94	32 45 50 56 61 67 72 78 84 89 95 100	33 48 53 59 65 71 77 83 89 95 101 106	34 50 57 63 69 76 82 83 95 101 107 114	35 60 67 73 80 87 94 100 107 114 120	36 57 64 71 77 85 92 99 106 113 121 128	37 60 67 75 82 90 97 105 112 119 127 134	38 62 70 79 86 94 102 110 118 126 135 142
8 9 10 11 12 13 14 15 16 17 18 19	21 24 26 29 32 34 37 40 42 45 48 50	23 26 29 32 34 37 40 43 46 49 52 55	24 25 28 31 35 38 41 44 47 50 53 57 60	25 27 31 34 37 41 44 48 51 55 58 61 65	26 29 33 37 41 44 48 52 55 59 63 66 70	32 36 40 43 47 51 55 59 63 68 72 75	28 34 38 43 47 51 56 60 64 68 73 77 81	29 37 41 46 50 55 60 64 69 73 78 82 87	30 39 44 49 53 58 63 68 73 78 83 88 93	31 42 47 52 57 62 68 73 78 83 89 94 99	32 45 50 56 61 67 72 78 84 89 95 100 106	33 48 53 59 65 71 77 83 89 95 101 106 112	34 50 57 63 69 76 82 83 95 101 107 114 120	35 60 67 73 80 87 94 100 107 114 120 127	36 57 64 71 77 35 92 99 106 113 121 128 135	37 60 67 75 82 90 97 105 112 119 127 134 142,	38 62 70 79 86 94 102 110 118 126 135 142 151
8 9 10 11 12 13 14 15 16 17 18	21 24 26 29 32 34 37 40 42 45 48	23 26 29 32 34 37 40 43 46 49 52	24 25 28 31 35 38 41 44 47 50 53 57	25 27 31 34 37 41 44 48 51 55 58 61	26 29 33 37 41 44 48 52 55 59 63 66	32 36 40 43 47 51 55 63 68 72	28 34 38 43 47 51 56 60 64 68 73 77	29 37 41 46 50 55 60 64 69 73 78 82	39 44 49 53 58 63 68 73 78 83 83	31 42 47 52 57 62 68 73 78 83 89 94	32 45 50 56 61 67 72 78 84 89 95 100	33 48 53 59 65 71 77 83 89 95 101 106	34 50 57 63 69 76 82 83 95 101 107 114	35 60 67 73 80 87 94 100 107 114 120	36 57 64 71 77 85 92 99 106 113 121 128	37 60 67 75 82 90 97 105 112 119 127 134	38 62 70 79 86 94 102 110 118 126 135 142

## COMMERCIAL ARITHMETIC

The object of the following pages is to set forth methods of making some of the calculations which occur in commercial arithmetic with greater rapidity and ease than attend the ordinary methods of making the same calculations. It is impossible to become proficient in arithmetical computations unless the fundamental principles of arithmetic have been fully mastered, and the more thorough this knowledge is, the more serviceable will the following methods prove to be.

#### ADDITION

Proficiency in addition can be acquired only by practice. There are no contractions by means of which addition may be performed with rapidity and ease. Practice, and practice only, will secure this first requisite of the accountant. However, a few practical suggestions will prove beneficial to those who have acquired but little proficiency in addition.

#### The Result Method of Addition

25

 $\frac{54}{484}$ 

422

5855

column, name the *result* only of each successive addition; thus 4, 8, 14, 16, 25, 29, 34; then carrying the 3 to the next column add 3, 8, 17, 25, 32, 38, 46, 48.

To Prove.—Add the columns downward. This method lies in the ability to see and combine the result of two or

lies in the ability to see and combine the result of two or more figures without stopping to add each separately.

Explanation.—Beginning with the lower figure in units

#### The Group Method of Addition

Explanation.—Beginning at the right add upward, 15, 25, 45; grouping 6, 4, 3 and 2 for 15; grouping 6 and 4 for 10 to add 15, making 25; and grouping 4, 7, 1 and 8 for 20 to add to 25, making 55, the result of first column. Carrying the 4 tens to the second column, adding as before, etc.

To Prove.—Add the columns downward, grouping

To Prove.—Add the columns downward, grouping as illustrated above.

Note.—Practice in grouping will lead to great proficiency, and after one has become skilled in the same it is advisable to skip about along the column

same, it is advisable to skip about along the column in order to select those numbers which can be most conveniently grouped.

#### Horizontal Addition

Numbers when written in horizontal order, as in involces and other business forms, may be added without being rewritten in vertical columns.

In adding numbers written horizontally more care is requisite that the units shall be of like order, and great certainty of correctness can be had by adding first from left to right and then from right to left.

510, 297, 67, 841, 638 = 2.353. Ans.

The group method may be employed with equal advantage where numbers are written horizontally.

Horizontal addition is not often practiced with numbers containing more than four or five figures. In adding dollars and cents it is best to omit the dollar sign.

#### Easy Methods for Adding Lengthy Single and Double Columns

57 4 1

7

37

6

8

53

8

9 8

7

9 6

Explanation.—Begin at 8 and add as near 20 as possible. thus 8, 6, 3 = 17, reject the tens and place 7 to the right of the last figure added, as in example; begin at 7 and add 7, 1, 4 and 5 = 17, reject the tens, place 7 to the right of 5, begin at 6 and add 6, 7, 2 and 4 = 19. Now adding the figures in the new columns, 7, 7 and 9 = 23 + 3 tens rejected = 53. Ans.

Explanation.—When the columns reach into the hun-9105 dreds, as each hundred is reached note the amount opposite the last figure entering into its sum, as shown in example, and then begin to add again, finally adding these results.

The best method of proof is that usually employed by business men, viz., beginning at the top and adding down the column. If the result is like the first it may be safely assumed to be correct, for the same error, if there were one, would not be likely to occur in the reverse order.

89

8987

## The Civil Service Method of Addition

\$2,974.60	21
8,947.24	28
2,842.11	36
2,976.54	47
7,894.32	60
9,874.21	39
5,432.18	
4.567.81	\$45,509.01

Begin at the right and add each column separately; thus the sum of the first column equals 21, the second 28, the third 36, and so on, and then add the results as shown above.

This method is used by civil service employes, bank clerks, and others who handle large sums of money. The advantage lies in the fact that one's attention may be called to other things and yet he is never at a loss to resume work where he left off.

### MULTIPLICATION

The following are contractions in multiplication of simple numbers.

- 1. To multiply by 10, 100, etc., annex as many ciphers to the multiplicand as there are in the multiplier.
- 2. To multiply by 5, 50, 500, etc., annex as many ciphers to the multiplicand as there are figures in the multiplier and divide the result by 2.
- 3. To multiply by 25, 250, etc., multiply by 100, 1,000, etc.. and divide the result by 4.
- 4. To multiply by any number ending in 9, multiply by the next higher number and then subtract the multiplicand.

Example.—Multiply 83 by 39:  $83 \times 40 = 3,320 - 83 = 3,237$ .

5. To multiply any number of two figures by 11, write the sum of the two figures between them.

Example.—Multiply 45 by 11: 4+5=9, hence 495. Ans.

6. When the sum of two figures is 10 or over, add the 1 to the left-hand figure.

Example. Multiply 74 by 11: 7+4=11, hence 814.

7. To square any number of 9's. Beginning at the left write 9 as many times less 1 as there are 9's in the given number, an 8, as many ciphers as 9's and 1.

Example.—Square of 99 = 9,801, of 999 = 998,001.

# Lightning Methods of Multiplication

To multiply by 11, divide by 8, call it tens. To multiply by 13, divide by 6, call it tens. To multiply by 2½, divide by 4, call it tens. To multiply by 31, divide by 3, call it tens. To multiply by 61, divide by 16, call it hundreds. To multiply by 81, divide by 12, call it hundreds. To multiply by 12½, divide by 8, call it hundreds. To multiply by 163, divide by 6, call it hundreds. To multiply by 25, divide by 4, call it hundreds. To multiply by 311, divide by 32, call it thousands. To multiply by 331, divide by 3, call it hundreds. To multiply by 50, divide by 2, call it hundreds. To multiply by 66%, divide by 15, call it thousands. To multiply by 831, divide by 12, call it thousands. To multiply by 125, divide by 8, call it thousands. To multiply by 1663, divide by 6, call it thousands. To multiply by 250, divide by 4, call it thousands. To multiply by 3334, divide by 3, call it thousands. To multiply by 37½, take § of the number, call it hundreds. To multiply by 871, take 4 of the number, call it hundreds.

# To Multiply Numbers Ending with 5

To multiply two small numbers each of which ends in 5, such as 35 and 75, take the product of the 3 and 7, increase this by one-half the sum of these figures, and prefix the result to 25. Thus,

35 
$$5 \times 5 = 25$$
  
75  $7 \times 3 = 21$ ,  $21 + \frac{1}{2}(7 + 3) = 26$   
2,625

# To Multiply Any Number by 21, 31, 41, etc.

In multiplying any number by 21, or 31, or 401, or any number of two figures where the last is 1, or of three figures, where the last two figures are 01, a good deal of time can be saved by abbreviating the ordinary process as here illustrated. For 231423 instance, suppose we have to multiply 231423 by 21.

4628460 Instead of putting down 231423 with 21 under it, then drawing a line, multiplying by 1, then by 2 or 20, 4859883 then adding, as is the ordinary custom; all that is necessary is simply to multiply by the 2, placing the product

one figure to the left, and then to add. Try this method, using 31, 51, 61, 91, 201, 3001, and 901 as multipliers. There is a saving in the above example of eight figures.

# To Multiply by 9, 99, 999, etc.

It is easier for most people to subtract than to multiply. Instead of multiplying by 9, we multiply by 10 and subtract the number from this product.

To multiply by 99, add two ciphers and subtract; to multiply by 999, add three ciphers and subtract, etc.

# The Complement Rule

N. B.—The "complement" of a number is a number which when added to it makes it 100. Thus the complement of 94 is  $\delta$ , of 98 is 2.

To find the product of two numbers, as 94 and 98, for instance, multiply their complements together, and for the other two figures subtract across, either the 2 from the 94 or the 6 from the 98.

$$98 - 2$$
 $94 - 6$ 
 $9212$ 

# Proof of Multiplication in Ten Seconds

Here is a simple *proof* of multiplication which is a modification of the old method of casting out the nines. The *unitate* of a number is the sum of its digits reduced to a unit. Note these examples:

$$24562 = 19 = 10 = 1$$
  
 $398469 = 39 = 12 = 3$   
 $400298 = 23 = 5$ 

The sum of the digits of the first number is 19; these digits added equal 10, and these added equal 1. Note the following example in multiplication:

$$\begin{array}{c}
252 = 9 \\
321 = 6 \\
252 \\
504 \\
756 \\
80892 = 27 = 9
\end{array}$$

The unitate of the multiplier is 9 and the unitate of the multiplicand is 6; 6 times 9 equals 54, and the unitate of 54 is 9. Now the unitate of the product is found to be 9 also, which is a proof of the correctness of the work. Note this example:

It is not necessary to write down as many figures as are written above. The *unitate* of each number can easily be found mentally.

# Rapid Multiplication

When the unit figures added equal ten, and the tens are alike, multiply the units and set down the result; add one to either numbers, in ten's place, and multiply by the other, and you have the product.

The three ciphers increase the number to be multiplied one thousand times, or two ciphers one hundred times, and dividing it by the number of times the multiplier is contained in 100 or 1,000 gives the product.

# THE NEW MULTIPLICATION TABLE

This Table shows that the large figures in front of each double row are intended to multiply the small head the large 9 is followed by 2, 3, 4, 5, increase of each, multiplied by 9 times 3 are 27, 9 times 4 are seen at the end of the row; and etc., and at the end 25 times  This Table shows that the large figures in front of each double row are figures in said row; for instance 6, 7, 8, 9, beneath which stands the seen at the end of the row; and etc., and at the end 25 times  This Table shows that the large figures in front of each double row are figures in said row; for instance 6, 7, 8, 9, beneath which stands the seen at the end of the row; and etc., and at the end 25 times  This Table shows that the large figures in front of each double row are figures in said row; for instance 6, 7, 8, 9, beneath which stands the seen at the end of the row; and etc., and at the end 25 times  This Table shows that the large figures in said row; for instance 6, 7, 8, 9, beneath which stands the seen at the end of the row; and etc., and at the end 25 times  This Table shows that the large figures in said row; for instance 6, 7, 8, 9, beneath which stands the seen at the end of the row; and etc., and at the end of the row; and etc., and at the end 25 times  This Table shows that the large figures in said row; for instance 6, 7, 8, 9, beneath which stands the increase of each, multiplied by 9, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$
9 2 3 4 5 6 7 8 9 18 27 36 45 54 63 72 81
1 2 3 4 5 6 7 8 9 10 11 22 3 44 65 66 77 88 99 110 121
$\begin{array}{cccccccccccccccccccccccccccccccccccc$
4 23 4 5 6 7 8 9 10 11 12 13 14 23 42 56 70 84 98 112 126 140 154 168 182 196
<b>6</b> 30 45 60 75 90 105 120 135 150 165 180 195 210 225 <b>6</b> 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 15 32 48 64 80 96 112 123 144 16) 176 192 203 224 240 256 <b>7</b> 2 3 4 <b>5</b> 6 7 8 9 10 11 12 13 14 15 16 17
1 34 51 68 85 102 119 136 133 170 187 204 221 233 255 272 289 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 36 54 72 90 108 126 144 162 180 198 216 234 252 270 288 306 324
192 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 38 57 76 95 114 133 152 171 190 209 228 247 266 285 304 323 342 361
2
<b>22</b> 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 44 66 88 110 132 154 176 198 220 242 264 286 308 330 352 374 396 418 440 462 484 <b>29</b> 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 19 19 20 21 22 23 24 48 72 96 120 144 168 192 216 240 264 288 312 336 360 384 409 432 456 480 504 528 552 576
<b>25</b> \$\frac{2}{5}\$ \$\frac{3}{6}\$ \$\frac{4}{5}\$ \$\frac{6}{6}\$ \$\frac{7}{8}\$ \$\frac{8}{9}\$ \$\frac{10}{11}\$ \$\frac{12}{12}\$ \$\frac{13}{3}\$ \$\frac{14}{4}\$ \$\frac{15}{16}\$ \$\frac{17}{18}\$ \$\frac{19}{20}\$ \$\frac{21}{22}\$ \$\frac{23}{25}\$ \$\frac{24}{25}\$ \$\frac{25}{50}\$ \$\frac{75}{375}\$ \$\frac{400}{425}\$ \$\frac{455}{450}\$ \$\frac{475}{500}\$ \$\frac{525}{550}\$ \$\frac{575}{500}\$ \$\frac{600}{625}\$ \$\frac{625}{500}\$ \$\frac{7}{3}\$ \$\frac{1}{3}\$ \$\

by 3.

# To Multiply Mixed Numbers

2. Multiply the upper whole number by the lower fraction.

Rule.—1. Multiply the whole numbers together.

3. Multiply the lower whole number by the upper fraction 4. Multiply the fractions together. 5. Add the four products.	a.
Example.—Multiply 123 by 83.	$\frac{12\frac{2}{3}}{8\frac{2}{4}}$
1. Whole numbers multiplied. 2. Multiply 12 by \(\frac{3}{4}\) 3. Multiply 8 by \(\frac{2}{3}\) 4. Multiply \(\frac{2}{3}\) by \(\frac{3}{4}\) = 6-12 or.  Add results.	$\begin{array}{ccc} & 9 \\ & 5\frac{1}{3} \\ . & & \frac{1}{2} \end{array}$
To Multiply Two Numbers Having the Same Fraction	
Rule.—1. Multiply the whole numbers together.  2. Add the two numbers together and multiply this sum by either one of the fractions.  3. Multiply the two fractions together.  4. Add the results.	9 <sup>2</sup> / <sub>3</sub> 6 <sup>2</sup> / <sub>3</sub> 54 10 <sup>4</sup> / <sub>5</sub> 64 <sup>4</sup> / <sub>3</sub>

### DIVISION

# Lightning Methods of Division

To divide by 1½, remove point one place to left, multiply by 8. To divide by 2½, remove point one place to left, multiply by 4. To divide by 3⅓, remove point one place to left, multiply by 3. To divide by 8⅓, remove point two places to left, multiply by 12.

To divide by 12½, remove point two places to left, multiply by 8.

To divide by 16⅔, remove point two places to left, multiply by 6.

To divide by 25, remove point two places to left, multiply by 4.

To divide by 33⅓, remove point two places to left, multiply by 3.

To divide by 35⅓, remove point two places to left, multiply by 3.

To divide by 50, remove point two places to left, multiply by 2.

To divide by 125, remove point three places to left, multiply by 8.

To divide by 250, remove point three places to left, multiply by 8.

To divide by 3333, remove point three places to left, multiply

# Tests of Divisibility

Any number is divisible by 2 when the last figure is even; divisible by 4 when the last two figures are divisible by 4; divisible by 5 when the last figure is 0 or 5; divisible by 3 when the sum of its figures is divisible by 3; divisible by 9 when the sum of its figures is divisible by 9.

The product of any three consecutive numbers is divisible by 6; the product of any four consecutive numbers is divisible by 24.

### MULTIPLICATION AND DIVISION COMBINED

When it becomes necessary to multiply two or more numbers together, and divide by a third, or by a product of a third and fourth, it must be literally done if the numbers are prime.

For example: Multiply 19 by 13 and divide that product by 7. This must be done at full length, because the numbers are prime; and in all such cases there will result a fraction.

But in actual business the problems are almost all reduceable by short operations; as the prices of articles, or amount called for, always corresponds with some aliquot part of our scale of computation. And when two or more of the numbers are composite numbers, the work can always be contracted.

Example.—Multiply 375 by 7, and divide that product by 21. To obtain the answer, it is sufficient to divide 375 by 3, which gives 125.

The 7 divides the 21, and the factor 3 remains for a divisor. Here it becomes necessary to lay down a plan of operation.

Draw a perpendicular line and place all numbers that are to be multiplied together under each other, on the right-hand side, and all numbers that are divisors under each other, on the lefthand side.

### EXAMPLES

Multiply 140 by 36, and divide that product by 84. We place the numbers thus:

84 | 140

We may cast out equal factors from each side of the line without affecting the result. In this case 12 will divide 84 and 36; then the numbers will stand thus:

7 | 140

But 7 divides 140, and gives 20, which, multiplied by 3, gives 60 for the result.

Multiply 4783 by 39, and divide that product by 13.

Three times 4783 must be the result.

Multiply 80 by 9, that product by 21, and divide the whole by the product of  $60 \times 6 \times 14$ .

In the above divide 60 and 80 by 20, and 14 and 21 by 7, and those numbers will stand canceled as above, with 3 and 4, 2 and 3, at their sides.

Now, the product  $3 \times 6 \times 2$ , on the divisor side, is equal to 4 times 9 on the other, and the remaining 3 is the result.

### FRACTIONS

The reciprocal of a number is a unit divided by the number. The reciprocal of a fraction is the fraction inverted. To reduce two or more fractions to a common denominator, multiply all the denominators except its own for a new numerator and multiply all the denominators together for a common denominator.

### ADDITION OF FRACTIONS

If the fractions have not a common denominator, reduce them to a common denominator, then add the numerators and place the sum ever the common denominator.

Add 
$$\frac{2}{3} + \frac{3}{4} + \frac{2}{5} = \frac{40 + 45 + 24}{60} = \frac{109}{60} = \frac{49}{60}$$

Here  $3\times4\times5$  or 60 is the common denominator.

### SUBTRACTION OF FRACTIONS

Reduce the fractions to a common denominator, subtract the numerators and place their difference over the common denominator. Subtract  $\frac{2}{3}$  from  $\frac{3}{4}$ . Here the common denominator is  $3\times 4=12$ , and the difference of the numerators 1, hence  $\frac{1}{12}$  is the answer

### MULTIPLICATION OF FRACTIONS

Multiply the numerators for a new numerator and the denominators for a new denominator.

Multiply  $\frac{2}{3} \times \frac{3}{4} = \frac{6}{12} = \frac{1}{2}$  the answer.  $3 \times 4$  is the new denominator, and  $2 \times 3$  is the new numerator.

### DIVISION OF FRACTIONS

Invert the terms of the divisor and proceed as in multiplication.

Inverting the divisor tells how many times the divisor is contained in one, as  $\frac{3}{4}$  inverted equals  $\frac{4}{5}$ , the number of times  $\frac{3}{4}$  is contained in 1.

# RULES AND EXAMPLES FOR VARIOUS BUSINESS OPERATIONS

Such As: Commission, Discounts, Profit and Loss, Taxes, Insurance, Partial Payments, etc.

### COMMISSION

To Find the Commission, the Cost or Selling Price and Per Cent of Commission Being Given

Rule.—Multiply the cost or selling price by the rate per cent of commission.

Example.—How much commission will be due an agent who buys \$9,000 worth of coal on a commission of 5 per cent?

### OPERATION

\$9,000 = Investment or base. 0.05 = Per cent of commission. \$450.00 = Commission or percentage.

Explanation.—Since the rate of commission is 5 per cent, the whole commission due the agent will be 5 per cent of the investment, \$9,000, or \$450.

# To Find the Investment or Gross Sales, the Commission and Per Cent of Commission Being Given

Rule.—Divide the commission by the rate per cent of commission.

Example.—If an agent's rate of commission is 3 per cent, what value of goods must be sell to earn a commission of \$75?

$$3\% = .03 \mid \begin{array}{c} \text{Com.} \\ \$75.00 \\ \$2,500 \end{array}$$

Explanation.—Since the agent's commission is 3 per cent, he earns 3 cents by selling \$1 worth of goods; the value of the

goods sold, therefore, must be as many times \$1 as 3 cents is contained times in \$75, which is 2,500 times, and 2,500 times \$1 is \$2,500.

# To Find the Investment and Commission When Both are Included in a Remittance by the Principal

Rule.—Divide the remittance by 1 plus the rate per cent of commission.

Example.—If \$1,050 is sent to a Syracuse agent for the purchase of salt, how much will be invest, his rate of commission being 5 per cent?

### OPERATION

\$1.00 = Investment.

\$1.05)\$1,050

.05 =Commission.

\$1,000, Sum invested

\$1.05 = Actual cost to principal of each dollar invested by agent.

in salt.

Explanation.—For each dollar invested the principal supplies the dollar invested and 5 cents for the agent's services, therefore the agent will invest only as many dollars in salt as \$1 plus 5 cents, or \$1.05, is contained times in \$1,050, or 1,000 times, hence the investment \$1,000.

### DISCOUNTS

Discount is the allowance made from the amount of a debt, a note, or other obligation, or a deduction from the price of goods for payment before it is due.

Trade Discount is the allowance made by manufacturers and merchants upon their fixed or list prices.

When there is more than one trade discount they are known as discount series.

Trade discount is computed by the rules of percentage on the market price as a base. When a series of discounts is allowed, the first only is so computed, and in every subsequent discount the remainder after each preceding discount is regarded as the base.

# To Find the Selling Price, the List Price and Discount Series Being Given

Example.—The list price of a carriage is \$250, what is the.net selling price, if a discount of 40 per cent is allowed?

### OPERATION

\$250 = List price.	\$250 = Cost.
.40 = Per cent of discount.	100 = Discount.
\$100.00 = Discount.	\$150 = Net selling price.

Explanation.—Since the discount is 40 per cent and the list price or base is \$250, the discount to be deducted will be 40 per cent, or \$100. The net price will be \$250 - \$100 = \$150.

### True Discount

True Discount is the difference between the face of a debt due at a future time and its present worth.

The Present Worth of a debt payable at a future time without interest is its value now; hence is such a sum as being put at simple interest at the legal rate will amount to the given debt when it becomes due.

### To Find the Present Worth and True Discount

Example.—Find the present worth and true discount of a claim for \$871.68 due 2 years 3 months hence, at 6 per cent per annum.

### OPERATION

\$ .135 = Interest on \$1 for 2 yrs. 3 mo. at 6 per cent. 1.135 = Amount. 871.58 ÷ 1.135 = \$768, present worth. 871.68 — \$768 = \$103.68, true discount.

Explanation —The amount of the debt at the end of 2 years 3 months is \$871.68, and since \$1 would in that time at 6 per cent amount to \$1 135, the present worth must be as many times \$1 as \$1.135 is contained times in \$871.68, or \$768. If the face is \$871.68 and its present worth is only \$768, the true discount will be \$871.68 minus \$768, or \$103.68.

Rule.—Divide the amount of the debt at its maturity by one dollar plus its interest for the given time and rate and the quotient will be the present worth. Subtract the present worth from the amount and the remainder will be the true discount.

### Bank Discount

Bank Discount is a deduction from the sum due upon a negotiable paper at its maturity for the cashing or buying of such paper before it becomes due.

The discount may be a fixed sum, but is usually the interest at the legal rate taken in advance. Bank discount is usually reckoned on a basis of 360 days a year.

The *time* in bank discount is always the number of days from the date of discounting to the date of maturity.

The term of discount is the time the note has to run after being discounted.

Notes containing an interest clause will bear interest from date to maturity unless other time be specified.

Non-Interest Bearing Notes become interest bearing if not paid at maturity.

The maturity of a note or draft is indicated by using a short vertical line with the date on which the note or draft is nominally due on the left and the date of maturity on the right; thus, Nov. 21—24.

# To Find the Discount and Proceeds, the Face of a Note,

# Time and Rate Per Cent of Discount Being Given

Example.—Find the bank discount and proceeds of a note for \$580 due in 63 days at 6 per cent.

### OPERATION

\$580.00 = Face. 6.09 = Discount for 63 days. \$573.91 = Proceeds.

Explanation.—The bank discount of a note being its interest for the time plus grace and the proceeds being the face of a note minus the bank discount, it is only necessary to compute the interest on the face for the full time to obtain the discount and to subtract such discount from the face to find the proceeds; thus, \$6.09 being the discount, \$580 minus \$6.09 equals \$573.91 proceeds.

Rule.—Compute the interest for the time and rate for the bank discount, and subtract this bank discount from the face of the note to find the proceeds.

# To Find the Face of a Note, the Proceeds, Time and Rate Per Cent of Discount Being Given

Example.—What must be the face of a note, payable in 60 days, that when discounted at 6 per cent the proceeds may be \$573.91?

### OPERATION

\$1.00 = Face of note of \$1. .0105 = Discount of note of \$1. .9895 = Proceeds of note of \$1.  $\$573.91 \div .9895$  = \$580 face required.

Explanation.—If the discount of \$1 at 6 per cent for 63 days is \$.0105, the proceeds of \$1 of the note would be \$1 minus \$.0105, or \$.9895, and if the proceeds of \$1 are \$\$.9895 it would require as many dollars face of note to give \$573.91 as \$.9895 are contained times in \$573.91, or \$580.

Rule.—Divide the proceeds of a note by the proceeds of one dollar for the given rate and time.

### PROFIT AND LOSS

Profit and Loss treats of gains or losses in business transactions.

The gross or full cost of an article is its first cost increased by all outlays incident to its purchase and holding to date of sale.

The Net Selling Price is the gross selling price, less all charges incident to its sale.

To Find the Profit and Loss, the Cost and Rate Being Given.

Example.—An agent paid \$95 for a reaper and sold it at a profit of 18 per cent. What was his gain?

### OPERATION

\$95.00 = Cost. .18 = Per cent of gain. \$17.10 = Gain.

Explanation.—Since the agent gained 18 per cent or 18 cents on \$1, on the \$95 of cost he would gain 95 times \$.18, or \$17.10.

Rule.—Multiply the cost by the rate.

To Find the Cost, the Gain or Loss and the Rate of Gain or Loss Being Given

Rule. - Divide the gain or loss by the per cent of gain or loss.

To Find the Rate of Profit or Loss, the Cost and the Profit or Loss Being Given

Rule.-Divide the profit or loss by the cost.

To Find the Cost, the Selling Price and the Rate Per Cent of Profit or Loss Being Given

Rules.—Divide the selling price by 1 plus the rate of gain. Divide the selling price by 1 minus the rate of loss.

### TAXES

# To Find a Property Tax

Example.—The rate of taxation in the city of Des Mcines, Iowa, is 17. What amount of tax must a person pay, whose personal property is valued at \$17,500, and who owns real estate assessed at \$24,900?

 $$17,500 \ 24,900 \ \hline $42,400 \times .01 \ $1 = $742.$ 

Explanation.—Since his total valuation was \$42,400, and the rate of taxation 12 per cent, his tax would be 11 per cent of \$42,400, or \$742.

Rule.—Multiply the total assessed value by the rate per cent of taxation.

### INSURANCE

# To Find the Cost of Insurance

Example.—The stock in a store is insured for \$750. What is the cost of insurance for one year at 1½ per cent premium if \$1.25 is charged for the policy?

### **OPERATION**

\$750 = Amount insured.

.015 = Per cent of premium.

\$11.25 = Premium.

1.25 = Cost of policy.

\$12.50 = Full cost of insurance.

Explanation.—Since the amount insured is the base, and the per cent of premium the rate, if the amount is multiplied by the rate the product, \$11.25, will be the premium; adding \$1.25, cost of policy = \$12.50, the full cost.

Rule.—Multiply the amount of insurance by the rate per cent of premium, and add extra charges, if any.

# To Find the Amount Insured, the Premium and Per Cent

# of Premium Being Given

Rule.—From the full cost of insurance subtract the extra charges, if any; divide the remainder by the per cent of premium, and the quotient will be the face of the policy.

# INTEREST

# Legal Points Concerning Interest

- 1. Interest is money paid for the use of money. If one borrows money promising to repay it with an additional amount, the sum borrowed is called the *principal*, the additional amount *interest*. It is usually stated as so much per cent, i.e., so many dollars of interest for every hundred dollars of principal.
- 2. When Allowed.—Interest is allowed (1) when it is expressly contracted for, (2) when such an agreement is implied, (3) when a debt has become due but remains unpaid.

The most common instance in the first class is where money is borrowed. The debtor usually expressly agrees to pay the debt and interest.

The second class is where money is borrowed and the agreement to pay interest is implied from the nature of the business or the usual custom.

The third class relates to the interest accruing after the debt becomes due, and it is a general rule that one who fails to pay money due must also pay interest upon it up to the time he does pay.

- 3. Usury.—Many of the States forbid any one to give or receive more than a stated rate of interest. This rate differs in the different States, varying from 6 to 12 per cent. The taking of a higher rate than that allowed by the law is usury; thus usury is unlawful interest.
- 4. Legal Rate.—Every State has established a certain rate which shall be the rate of interest in all those cases where the parties have not fixed their own rate. This is called the *legal rate*, and in most States it is 6 per cent per annum. See *Interest Laws and Statutes of Limitation*.

A promise to "pay \$100 and interest" means interest at the legal rate of the State in which the payment is to be made.

5. Penalty of Usury.—Some penalty is inflicted upon the one who takes usury, i.e., upon the lender, not upon the borrower. It varies in the different States, but is usually one of three kinds: (1) the forfeiture of the usurious interest, i.e., all above the lawful rate; (2) the forfeiture of all the interest; or (3) the forfeiture of both principal and interest.

In a State where the first rule is adopted, the lender who has lent at an usurious rate may recover the principal and interest at the legal rate; where the second is adopted only the money he lent; and where the third is adopted not even that. See Interest Laws.

- 6. Book Accounts.—Interest may be charged on book accounts, when it is known to the customer that it is a common practice of the seller to charge interest; but not until the statement is rendered.
- 7. Judgments.—Interest upon a judgment dates from the time the judgment was rendered. Debts for board and lodging, where there was no price or time of payment fixed, will not draw interest until they are reduced to judgments.
- 8. Administrators, Executors, Guardians and Trustees may be charged interest upon all trust funds in their hands after their failure to invest them within a reasonable time.
- 9. Copartuership.—If a partner withdraws money from the funds belonging to the firm, for private use, he will be liable for interest on the same.
- 10. Policy of Insurance.—If loss occurs under a policy of insurance, it bears interest from the time it is due according to the terms of the policy.
- 11. Compound interest is not collectible by law. When interest has accumulated and become payable, an agreement that it shall be added to the principal thus formed will usually be deemed legal.

# Lightning Method for Calculating Interest

This is probably the shortest and simplest method known. Multiply the principal by the nun ber of days, and

1	-Per	. ~	J 0110 25 111		CL CO	J 0,
	For	4	per cent,	divide	by	90
	4.6	5	* "	6.6	56	72
	6.6	6	44	6.6	4.6	60
	66	7	66	6.6	6 6	52
	66	8	66	66	6.6	45
	66	9	4.6	6.6	6.6	40
	66	10	6.6	4.6	6 6	36
	66	12	6.6	6.6	6.6	30

Example.—What is the interest on \$450 for 1 month and 10 days at 8 per cent?

Solution.  $-450 \times 40 \div 45 = \$4.00$ . Ans. Interest.

### BANKERS' METHOD

# To Find the Interest on Any Sum at 6 Per Cent for Any Number of Days

Rule.—Remove the decimal point two places to the left, and you have the interest for 60 days.

Example.—What is the interest on \$250 for 60 days at 6 per cent?

Principal, \$250. Interest, \$2.50.

When the time is more or less than 60 days, first find the interest for 60 days, and from that to the time required.

What is the interest on \$720 for 75 days at 6 per cent?

\$9.00, interest for 75 days.

# Cancelation Method

Rule.—Place the principal, the rate, and the time in months, on the right of a vertical line, and 12 on the left; or, if the time is short and contains days, reduce to days, and place 360 on the left. After canceling equal factors on both sides of the line, the product of the remaining factors on the right, divided by the factor, if any, on the left, will give the required interest.

To find the interest of \$184.80 for 1 year 5 months at 5 per cent.

Analysis.—\$184.80 × .05 gives the interest for 1 year or 12 months, which divided by 12 gives the interest for 1 month; the quotient multiplied by 17, the number of months in 1 year 5 months, gives \$13.09, the interest required.

To find the interest of \$240 for 2 months 18 days at 7 per cent.

Analysis.—\$240 × .07 gives the interest for 1 year or 360 days, which divided by 360 gives the interest for 1 day; the quotient multiplied by 78, the number of days in 2 months 18 days, gives \$3.64, the required interest.

To find the interest of \$696 for 93 days at 1 per cent a month.

Of \$325.20 at \( \frac{3}{4} \) per cent a month for 63 days.



# INTEREST TABLES.

In the following interest tables, interest is computed to mills to insure greater accuracy.

The interest at any other rate can easily be found. Interest at 4 per cent is ½ of interest at 8 per cent. Double interest at 5 per cent and you have interest at 10 per cent, etc.

The interest is given in hundreds of dollars. To find the interest on \$10, \$20, etc., move decimal point one place to the left. To find interest on \$1, \$2, etc., move decimal point two places to the left.

### **EXAMPLE:**

FIND THE INTEREST ON \$165 FOR ONE YEAR FIVE MONTHS SIXTEEN DATS AT FIVE PER CENT.

Interest	on	\$100	for	one	year	******************	\$5.00
4)	66	60	4.6	6.6	"		3.00
eş.	**	5	6.6	64	"		.25
44	44	100	6.6	five	months		2.08
Ġ	66	60	4.6	16	**		1.25
# i	48	5	46	++	46	******************	.10
44	#4	100	,64	sixt	een day:	S	.22
<b>94</b>	44	60	84		44	*********	.13
44	4	5	4.6	(6)	44	*************	.01
	To						

# INTEREST AT FIVE PER CENT.

I         .014         .028         .042         .056         .069         .083         .097         .111         .132           3         .042         .083         .111         .139         .167         .194         .222         .22         .23           4         .056         .111         .167         .222         .278         .333         .389         .444         .556         .66         .083         .167         .250         .333         .417         .500         .583         .667         .77           7         .097         .194         .291         .389         .486         .583         .681         .778         .889         1.00           8         .111         .222         .333         .444         .556         .667         .778         .889         1.00           9         .125         .250         .375         .500         .625         .750         .875         .100         .139         .278         .417         .566         .694         .833         .922         .111         .122           10         .139         .278         .611         .784         .917         .000         .222         1.33					1	1	1			
2	Days.	\$100	\$200	\$300	\$400	\$500	\$600	\$700	\$800	\$900
2	I	014	028	049	056	069	083	097	111	.125
4         .056         .111         .167         .208         .250         .291         .333         .3           5         .069         .139         .208         .278         .347         .417         .486         .556         .6           6         .083         .167         .250         .333         .417         .500         .583         .667         .78           7         .097         .194         .291         .389         .486         .583         .681         .778         .8           9         .125         .250         .375         .500         .625         .750         .875         1.000         1.11           10         .139         .278         .417         .556         .694         .833         .972         1.111         1.22           11         .153         .306         .459         .611         .764         .917         1.069         1.222         1.3           12         .167         .333         .500         .667         .833         1.000         1.167         1.333         1.56         1.111         1.22         1.3           13         .880         .583         .778         .97	2					.139	.167		.222	.250
5	3	,042			.167		.250			.375
6         .083         .167         .250         .333         .417         .500         .583         .667         .77           7         .097         .194         .291         .389         .486         .583         .681         .778         .89           8         .111         .222         .333         .444         .556         .667         .778         .889         1.00           10         .139         .278         .417         .556         .694         .833         .972         1.111         .22           11         .153         .306         .459         .611         .764         .917         1.069         1.222         1.3           13         .180         .361         .542         .722         .903         1.083         1.264         1.441         1.61           14         .194         .389         .583         .778         .971         1.167         1.361         1.556         1.73           15         .208         .417         .625         .833         1.041         1.250         1.458         1.667         1.8           16         .222         .444         .667         .889         1.111	4									.500
7	6									.625
8	7								778	.875
10	8							.778		1,000
11		.125	.250	.375	.500	.625	.750	.875	1.000	1.125
12						.694	.833	.972		1.250
13										1.375
14         .194         .389         .583         .778         .971         1.167         1.361         1.556         1.78           15         .208         .417         .625         .833         1.041         1.250         1.458         1.667         1.8°           16         .222         .4444         .667         .889         1.111         1.333         1.555         1.778         2.01           17         .236         .472         .708         .944         1.180         1.417         1.653         1.889         2.1°           18         .250         .500         .750         1.000         1.250         1.500         1.750         2.000         2.2°           19         .264         .528         .792         1.056         1.319         1.583         1.847         2.111         2.3°           21         .291         .583         .875         1.167         1.458         1.750         2.000         2.2°           21         .291         .583         .875         1.167         1.458         1.750         2.041         2.33         2.6°           21         .291         .583         .875         1.278         1.597<										1.625
16	14					971				1.750
17		.208	.417	.625	.833	1.041	1.250			1.875
18         .250         .500         .750         1.000         1.250         1.500         1.750         2.000         2.21           19         .264         .528         .792         1.056         1.319         1.583         1.847         2.111         2.3           20         .278         .556         .833         1.111         1.389         1.667         1.944         2.222         2.261           21         .291         .583         .875         1.167         1.458         1.750         2.041         2.333         2.66           22         .305         .611         .917         1.222         1.528         1.833         2.138         2.444         2.7           23         .319         .639         .959         1.278         1.597         1.917         2.236         2.556         2.8           24         .333         .667         1.000         1.333         1.667         2.000         2.333         2.667         3.0           25         .347         .694         1.042         1.389         1.736         2.083         2.430         2.778         3.1           26         .361         .722         1.083         1.					.889	1.111				2.000
19	18				1.000	1,180	1.417	1.653	1.889	2.125
20	19				1.000	1 319	1.500	1.750	2.000	2.230
22	20					1.389		1.944		2.500
23		.291	.583	.875	1.167	1.458	1.750	2.041	2.333	2.625
24	22						1.833			2.750
25	24				1.278			2.236		2.875
26	25							2.333		3.125
27	26		: 722	1.083			2.167			3.250
29   .403   .806   1.208   1.611   2.014   2.417   2.820   3.222   3.65    1	27		.750	1.125		1.875	2.250			3.375
Mos.   1			.778							3.500
1       .417       .833       1.250       1.667       2.083       2.500       2.917       3.333       3.73         2       .833       1.667       2.500       3.333       4.167       5.000       5.833       6.667       7.50         3       1.250       2.500       3.750       5.000       6.250       7.500       8.750       10.000       11.667       13.333       15.000       6.667       8.333       10.000       11.667       13.333       16.667       18.73       6.250       8.333       10.416       12.500       14.583       16.667       18.73       6.250       7.500       10.000       12.500       15.000       17.500       20.000       22.50       2.500       20.000       22.50       2.500       2.500       2.500       2.500       2.500       11.500       11.500       11.500       11.500       11.500       11.500       11.500       11.500       11.500       11.500       11.500       12.500       12.500       12.500       12.500       12.500       12.500       12.500       12.500       12.500       12.500       12.500       12.500       12.500       12.500       12.500       12.500       12.500       13.333       12.500       12.500		.403	.806	1.208	1.611	2.014	2.417	2.820	3.222	3.625
2			.833		1.667			2.917	3.333	3.750
5   2.083   4.167   6.250   8.333   10.416   12.500   14.583   16.667   18.78   6   2.500   5.000   7.500   10.000   12.500   15.000   17.500   20.000   22.56   7   2.917   5.833   8.750   11.667   14.583   17.500   20.417   23.333   6.667   10.000   13.333   16.667   20.000   23.333   26.667   30.00   9   3.750   7.500   11.250   15.000   18.750   22.500   26.250   30.000   33.78   10   4.167   8.333   12.500   16.667   20.833   25.000   29.167   33.333   37.56   11   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.28   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.28   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.28   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.28   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.28   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.28   4.583   9.167   37.500	2		1.667							7.500
5   2.083   4.167   6.250   8.333   10.416   12.500   14.583   16.667   18.78   6   2.500   5.000   7.500   10.000   12.500   15.000   17.500   20.000   22.56   7   2.917   5.833   8.750   11.667   14.583   17.500   20.417   23.333   6.667   10.000   13.333   16.667   20.000   23.333   26.667   30.00   9   3.750   7.500   11.250   15.000   18.750   22.500   26.250   30.000   33.78   10   4.167   8.333   12.500   16.667   20.833   25.000   29.167   33.333   37.56   11   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.28   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.28   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.28   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.28   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.28   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.28   4.583   9.167   37.500	3									
7   2.917   5.833   8.750   11.667   14.583   17.500   20.417   23.333   26.22   8   3.333   6.667   10.000   13.333   16.667   20.000   23.333   26.667   30.00   9   3.750   7.500   11.250   15.000   18.750   22.500   26.250   30.000   33.76   10   4.167   8.333   12.500   16.667   20.833   25.000   29.167   33.333   37.50   11   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.24   12.500	5					10 416	12 500	14 583	16 667	18 750
7   2.917   5.833   8.750   11.667   14.583   17.500   20.417   23.333   26.22   8   3.333   6.667   10.000   13.333   16.667   20.000   23.333   26.667   30.00   9   3.750   7.500   11.250   15.000   18.750   22.500   26.250   30.000   33.76   10   4.167   8.333   12.500   16.667   20.833   25.000   29.167   33.333   37.50   11   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.24   12.500	6			7.500	10.000	12.500	15.000	17.500	20,000	22.500
9   3.750   7.500   11.250   15.000   18.750   22.500   26.250   30.000   33.75   10   4.167   8.333   12.500   16.667   20.833   25.000   29.167   33.333   37.55   11   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.24   12.500   12.083	7	2.917	5.833	8.750	11.667	14.583	17.500	20.417	23.333	26.250
10   4.167   8.33312.50016.667 20.833 25.000 29.167 33.333 37.56 11   4.583   9.167   13.750   18.333   22.917   27.500   32.083   36.667   41.247   4.583			6.667	10.000	13.333	16.667	20.000	23.333	26.667	30.000
11 4.583 9.167 13.750 18.333 22.917 27.500 32.083 36.667 41.24			7.500	11.250	15.000	18.750	22.500	26.250	30.000	33.750
Year										
4 I E AGGITO AGGITE AGGIGA AGGIGA AGGIGE AGGITA AGGITE AG										
1   5.000   10.000   15.000   20.000   25.000   30.000   35.000   40.000   45.00	1	5.000	10.000	15.000	20.000	25.000	30.000	35.000	40.000	45.000

# INTEREST AT SIX PER CENT.

Days.	\$100	\$200	\$300	\$400	\$500	\$600	\$700	\$800	\$900			
1 2 3	.017	.033	.050	.067		.100	.117	.133	.150			
4 5	.050 .067 .083	.100 .133 .167	.150 .200 .250	.200 .267 .333	.250 .333 .417	.300 .400 .500	.350 .467 .583	.400 .533 .667	.450 .600 .750			
6 7 8	.100 .117 .133	.200 .233 .267	.300 .350 .400	.400 .467 .533	.500 .583 .667	.600 .700 .800	.700 .817 .933	.800 .933 1.067	.900 1.050 1.200			
9 10 11	.150 .167 .183	.300 .333 .367	.450 .500 .550	.600 .667 .733	.833 .917	1.000 1.100	1.050 $1.167$ $1.283$	1.200 1.333 1.467	1.500 1.650			
12 13 14	.200 .217 .233	.400 .433 .467	.600 .650 .700	.800 .867 .933	1.000 1.083 1.167	1.200 1.300 1.400	1.400 1.517 1.633	$     \begin{array}{c c}       1.600 \\       1.733 \\       1.867     \end{array} $	1.950 2.100			
15 16 17	.250 .267 .283	.500 .533 .567	.750 .800 .850	1.000 1.067 1.133	1.250 1.333 1.417	$egin{array}{c} 1.500 \\ 1.600 \\ 1.700 \\ \end{array}$	1.983	$ \begin{array}{c c} 2.000 \\ 2.133 \\ 2.267 \end{array} $	2 250 2.400 2.550			
18 19 20	.300 .317 .333	.600 .633 .667	.900 .950 1.000	1.200 1.267 1.333	1.500 1.583 1.667	1.800 1.900 2.000	2.100 $2.217$ $2.333$	2.400 2.533 2.667	2.700 $2.850$ $3.000$			
21 22 23	.350 367 .383	.700 .733 .767	1.050 1.100 1.150	1.400 1.467 1.533	1.750 1.833 1.917	$\begin{bmatrix} 2.100 \\ 2.200 \\ 2.300 \end{bmatrix}$	$\frac{2.567}{2.683}$	2.800 2.933 3.067	3.150 3.300 3.450			
24 25 26	.400 .417 .433	.800 .833 .867	1.200 1.250 1.300	1.600 1.667 1.733	$ \begin{array}{c c} 2.000 \\ 2.083 \\ 2.167 \end{array} $	2.400 $2.500$ $2.600$	$2.800 \\ 2.917 \\ 3.033$	3.200 3.333 3.467	3.600 3.750 3.900			
27 28 29	.450 .467 .483	.900 .933 .967	1.350 1.400 1.450	1.800 1.867 1.933	2.250 2.333 2.417	2.700 $2.800$ $2.900$	3.150 3.267 3.383	3.600 3.733 3.867	4.050 4.200 4.350			
Mos. 1 2	.500 1.000 1.500	1.000 2.000 3.000	1.500 3.000	2.000	5.000	6.000	7.000		9.000			
3 4 5 6	$\frac{2.000}{2.500}$	4.000 5.000	4.500 6.000 7.500	10.000	$10.000 \\ 12.500$	$12.000 \\ 15.000$	$14.000 \\ 17.500$	16.000 $20.000$	22.500			
8 9	3.000 3.500 4.000	8.000	10.500   12.000	$\frac{14.000}{16.000}$	17.500 $20.000$	18.000 21.000 24.000	$\frac{24.500}{28.000}$	$\frac{28.000}{32.000}$	31.500 36.000			
10 11 Year.	4.500 5.000 5.500	10.0001	15.0001	20.000	[25.000]	27.000 30.000 33.000	35,000	40 000	45 000			
1	6 000	12.000	18.000	24.000	30.000	36,000	42.000	48.000	54.000			

# INTEREST AT SEVEN PER CENT.

	1	,		1		1		1	
Days.	\$100	\$200	\$300	\$400	\$500	\$600	\$700	\$800	\$900
1	.019	.039	.058	.078	.097	.117	.136	.156	.175
2 3	.039	.078	.117	.156	.194		.272	.311	.350
3	.058	.117	.175	.233	.292		.408	.467	.525
4	.078	.156	.233		.389	.467	.544	.622	
5	.097		.292	.389	.486		.681	.778	.875
6 7	.117	.233 .272	.350 .408	.467 .544	.588 .681	.700 .817	.817 .953	.933 1.089	1.050 1.225
8	.156	.311	.467	.622	.778	.933	1.089	1.009	
9	.175	.350	.525	.700	.875	1.050	1.225	1.400	
10	.194	.389	.583	.778	.972	1.167	1.361	1.556	1.750
11	.214	.428	.642	.856	1.069	1.283	1.497	1.711	1.925
12	.233	.467	.700	.933	1.167	1.400	1.633	1.867	2.100
13	.253	.506	.758	1.011	1.264	1.517	1.769	2.022	
14	.272	.544	.817	1.089	1.361		1.906	2.178	2.450
15 16	.292	.583	.875	1.167	1.458		2.042	2.333	
17	.311 .331	.622	.933 .992	1.244 $1.322$	$\begin{vmatrix} 1.556 \\ 1.653 \end{vmatrix}$	1.867	2.178 $2.314$	2.489	
18	.350	.700	1.050	1.400	1.750	1.983 2.100	2.314 $2.450$	2.644 $2.800$	2.975 3.150
19	.369	.739	1.108	1.478	1.847	2 217	2.586	2.956	3.325
20	.389	.778	1.167	1.556	1.944	2.217 2.333	2.722	3.111	3.500
21	.408	.817	1.225	1.633		2.450	2.858	3.267	3.675
22	.428	.856	1.283	1.711	<b>2.1</b> 39	2.567	2.994	3,422	3.850
23	.447	.894	1.342	1.789	2.236	2.683	3.131	3.578	4.025
24	.467	.933	1.400	1.867	2.333	2.800	3.267	3.733	4.200
25	.486	.972	1.458	1.944	2.431	2.917	3.403	3.889	4.375
26 27	.506 .525	1.011 1.050	1.517 1.575	2.022 $2.100$	2.528 $2.625$	3.033	3.539	4.044	4.550
28	.544	1.089	1.633	$\frac{2.100}{2.178}$		3.150 3.267	3.675 3.811	4.200 4.356	4.725
29	.564	1.128	1.692	2.256	2.819	3.383	3.947	4.511	5.075
Mos.			,						
1	.583	1.167	1.750		2.917		4.083		5.250
2	1.167	2.333	3.500		5.833	7.000	8.167	9.333	10.500
3 4	$1.750 \\ 2.333$	3.500 4.667	5.250 $7.000$	7.000	8.700	10.500	12.250	14.000	21.000
5	2.917	5.833		11 667	14 592	17.500	20.333	10.001	21.000
5 6	3.500	7 000	10 500	14 000	17 500	21 000	24 500	28 000	31.500
7	4.083	8.167	12.250	16.333	20.417	24.500	28 583	32 667	36 750
8	4.667	9.333	14.000	18.667	23.333	28.000	32.667	37.333	42.000
9	5.250	10.500	15.750	21.000	26.250	31.500	36.750	42.000	47.250
10	5.833	11.667	17.500	23.333	29.167	35.000	40.833	46.667	52.500
11	6.417	12.833	19.250	25.667	32.083	38.500	44.917	51.333	57.750
Year 1	7 000	14 000	21 000	28 000	35 000	42.000	49 000	58 000	63 000
_ 1		12.000	24.000	20.000	55.000	12.000	10.000	00.000	05.000

# INTEREST AT EIGHT PER CENT.

		1	1	1	1	1	1			
Days.	\$100	\$200	\$300	\$400	\$500	\$600	\$700	\$800	\$900	
1	.022	.044	.067	.089	.111	.133	.156	.178	.200	
2	.044	.089	.133	.178	220	.267	.311	.356	.400	
2 3	.067	.133	.200	.267	.333	.400	.467	.533	.600	
4 5	.089	.178	.267	.356	.444	.533	.622	.711	.800	
5	.111	222	.333	.444	.556	.667	.778	.889	1.000	
6	.133	.267	.400	.533	.667	.800	. 933	1.067	1.200	
6	.156	.311	.467	.622	.778	.933	1.089	1.244	1.400	
8	.178	.356	.533	.711	.889	1.067	1.244	1.422	1.600	
9	.200	.400	.600	.800	1.000	1.200	1.400	1.600	1.800	
10	.222	.444	.667	.889	1.111	1.333	1.556	1.778		
11	.244	.489	.733	.978	1.222	1.467	1.711	1.956	2.200	
12	.267	.533	.800	1.067	1.333	1.600	1.867	2.133	2.400	
13	.289	.578	.867	1.156	1.444	1.733	2.022	2.311	2.600	
14	.311	.622	.933	1.244	1.556	1.867	2.178	2.489	2.800	
15	.333	.667	1.000	1.333	1.667	2.000	2.333	2,667	3.000	
16	.356	.711	1.067	1.422	1.778	2.133	2.489	2.844	3.200	
17	.378	. 756	1.133	1.511	1.889	2.267	2.644	3.022	3.400	
18	.400	.800	1.200	1.600	2.000	2.400	2.800	3.200	3.600	
19	422	.844	1.267	1.689	2.111	2.533	2.956	3.378		
20	.444	.889	1.333	1.778	2.222	2.667	3.111	3.556		
21	467	.933	1.400	1.867	2.333	2.800	3.267	3.733	4.200	
22	.489	.978	1.467	1.956	2.444	2.933	3.422	3.911	4,400	
23	.511	1.022	1.533	2.044	2.556	3.067	3.578	4.089	4.600	
24	.533	1.067	1.600	2.133	2.667	3.200	3.733	4.267	4.800	
25	.556	1.111	1.667	2.222	2.778	3.333	3.889	4.444	5.000	
26	.578	1.156	1.733	2.311	2.889	3.467	4.044	4.622	5.200	
27	.600	1.200	1.800	2.400			4.200	4.800	5.400	
28	.622	1.244	1.867	2.489		3.733	4.356	4.978		
29	.644	1.289	1.933	$\frac{2.403}{2.578}$	3.222	3.867	4.511	5.156		
Mos.	.011	1.200	1,000	2.010	0,222	0.001	1.011	0.100	0.000	
1	.667	1.333	2.000	2.667	3.333	4.000	4.667	5,333	6.000	
2 3 4	1.333	2.667	4.000	5.333					12,000	
3	2.000	4.000	6,000	8.000	10.000	12,000	14.000	16.000	18.000	
4	2,667	5.333	8.000			16.000				
5	3.333					20.000				
6	4.000	8.000	12.000	16.000	20.000	24.000	28,000	32.000	36.000	
7.	4.667	9.333	14 000	18,667	23.333	28.000	32,667	37.333	42.000	
8	5.333	10.667	16.000	21.333	26.667	32,000	37.333	42.667	48.000	
9	6.000	12.000	18.000	24.000	30,000	36.000	42,000	48.000	54.000	
10	6.667	13.333	20,000	26,667	33.333	40.000	46.687	53.333	60.000	
11									66.000	
Year.						1		Į.		
1	8.000	16.000	24.000	32.000	40.000	48.000	56.000	[64.000]	72,000	
				1	i	1	1	1	1	

# POSSIBILITIES OF COMPOUND INTEREST

3					_																***			
n years			-5	\$2	\$3	\$4	\$0	98	\$7	88	88	\$10	\$11	\$12	\$13	\$14	\$16	\$16	\$17	\$18	\$18	\$20		
Table showing accumulations of MONTHLY deposits of one to twenty dollars in one to ten		10 Years	139.80	279.60	419.40	559.20	699.00	838.80	978.60	1118.40	1258.20	1398.00	1537.80	1677.60	1817.40	1957.20	2097.00	2236.80	2376.60	2516.40	2656.20	2796.00		
llars in		9 Years	123.88	247:76	371.64	495.52	619.40	743.28	867.16	991.04	1114.92	1238.80	1362.68	1486.56	1610.44	1734.32	1858.20	1982.08	2105.95	2229.84	2353.72	2477.60		
wenty do	NUALLY	8 Years	108.42	216.84	325.26	433.68	542.10	650.52	758.94	867.36	975.78	1084.20	1192.62	1301.04	1409.46	1517.88	1626.30	1734.72	1843.14	1951.56	2059.98	2168.40		I
one to tr	SEMI-AL	7 Years	93.41	186.82	280.23	373.64	467.05	560.46	653.87	747.28	840 69	934.10	1027.51	1120.92	1214.33	1307.74	1401.15	1494.56	1587.97	1691.38	1774.79	1868.20		ANNOM
osits of	MPOUNDED	6.Years	78.85	157.70	236.55	315.40	394.25	473.10	551.95	630.80	709.65	788.50	867.35	946.20	1025.05	1103.90	1182.75	1261.60	1340.45	1419.30	1498.15	1577.00		CENT PER ANNUM
HLY dep	WHEN INTEREST IS COMPOUNDED SEMI-ANNUALLY	6 Years	64.72	129.44	194.16	258.88	323.60	388.32	453.04	517.76	582.48	647.20	711.92	776.64	841.36	90906	970.80	1035.52	1100.24	1164.96	1229.68	1294.40		AT THREE PER
FINOM 3	N INTERE	4 Years	51.00	102.00	153.00	204.00	255.00	306.00	357.00	403.00	459.00	510.00	561.00	612.00	663.00	714.00	765.00	816.00	867.00	918.00	969.00	1020.00		AT TH
ations o	WHE	3 Years	37.67	75.34	113.01	150.68	188.35	226.02	263.69	301.36	339.03	376.70	414.37	452.04	489.71	527.38	565.05	602.72	640.39	678.06	715.73	753.40		
accumul		2 Years	24.75	49.50	74.25	99.00	123.75	148.50	173.25	198.00	222.75	247.50	272.25	297.00	321.75	346.50	371.25	396.00	420.75	445.50	470.25	495.00		
howing		1 Year	12.19	24.38	36.57	48.76	60.95	73.14	85.33	97.52	109.71	121.90	134.09	146.28	158.47	170.66	182.85	195.04	207.23	219.42	231.61	243.80		
able s			:\$	\$2	83	23	26	\$6	\$7	\$8	88	\$10	\$11	\$12	\$13	\$14	\$15	\$16	\$17	\$18	\$19	\$20		
4	-	-	-		-	-	-	-	-	and and and		-	-	-	-	-	-	-	-		-	-	-	

### How Money Grows at Interest

If one dollar be invested and the interest added to the principal annually, at the rates named, we shall have the following result as the accumulation of one hundred years.

One dollar, 100 years at 1 per cent	2.75	
One dollar, 100 years at 2 per cent	7.25	
One dollar, 100 years at 3 per cent	19.25	
One dollar, 100 years at 4 per cent	50.25	
One dollar, 100 years at 5 per cent	131.50	
One dollar, 100 years at 6 per cent	340.00	
One dollar, 100 years at 7 per cent	868.00	
One dollar, 100 years at 8 per cent	2.203.00	

# Time in which Money Doubles

Per C't. Simple Int.	Comp. Int.	Per C't.	Simple Int.	Comp. Int.
2½ 40 years. 3 33 yrs. 4 mos.	35 years. 28 yrs. 26 da. 23 yrs. 164 da. 20 yrs. 54 da. 17 yrs. 246 da. 15 yrs. 273 da.	6 7 8 9	16 yrs. 8 mos.	14 yrs. 75 da. 11 yrs. 327 da. 10 yrs. 89 da. 9 yrs. 2 days. 8 yrs. 16 days. 7 yrs. 100 da.

# Table Showing Number of Days Between Two Dates

	To	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
	January.	365	31	59	90	120	151	181	212	243	273	304	334
	Febru'ry		365	28	59	89	120	150	181	212	242	273	303
i	March	306	337	365	31	61	92	122	153	184	214	245	275
4	April	275	306	334	365	30	61	91	122	153	183	214	244
From	May	245	276	304	335	365	31	61 30	92 61	123 92	$\frac{153}{122}$	184 153	214 183
댎	June	214	245	273	304	334	365		31	62	92	123	153
1	July	184	215	243	274	304	335	365		31	61	92	122
	August.	122	184 153	212 181	$\frac{243}{212}$	$\begin{vmatrix} 273 \\ 242 \end{vmatrix}$	304 273	334 303	365 334	365	30	61	91
	October.	92	123	151	182	212	243	273	304	335	365	31	61
1	Nov	61	92	120	151	181	212	242	273	304	334	365	30
Ĺ	Dec	31	62	90	121	151	182	212	243	274	304	335	365

For example: From any date in July to the same date in February there are 215 days. When the day of the month to which you count is LATER, add the difference; if EARLIER, subtract it. Thus, from January 1 to May 1 are 120 days; to the 11th of May it is 10 days more; while from January 11 to May 1 it is 10 days less. In Leap Years add 1 day if the last day of February is included in the given time.

Dividing the table diagonally by short horizontal lines, the numbers below show the days to a date in the year following, and numbers above to a date within the same year.

27		-						-							-
I	\$2	2;	\$3	$3\frac{1}{2}$	\$4	41	\$5	Days	\$7	\$8	\$9	10	12	15	20
I	.29	.30	.43	.50	.57	.64	.71	1	1.00	1.14	1.29	1.43	1.71	2.14	2.86
I	.08	.10	1.13	.15	.17	.19	.21	34	.29	.33	.38	.42	.50	.63	.83
IJ	.17	.21	.25	.29	33	.38	.42	1/2	.58	.67	.75	.83	1.00	1.25	1.67
I	.25	.31	.38	.44	.50	.56	.63	3/4	.88	1.00	1.13	1.25	1.50	1.88	2.50
ı	.33	.42	.50	.58	.67	.75	.83	î	1.17	1.33	1.50	1.67	2.00	2.50	3.33
H	.50	.63	.75	.88	1.00	1.13	1.25	11/4	1.75	2.00	2.25	2.50	3.00	3.75	5.00
i	.67	.83	1.00	1.17	1.33	1.50		2	2.33	2.67	3.00	3.33	4 00	5.00	6.67
I	.83					1.88		21/4	2.92	3 83	3.75	4.17	5.00		8.33
ı	1.00	1.25	1.50	1.75	2.00	2.25	2.50	3	3.50	4.00	4.50	5.00	6.00	7.50	10:00
1	1.17	1.46	1.75	2.04	2.33	2.63	2.92	31/4	4.08	4.67	5.25	5 83	7.00	8.75	11.67
1	1.33	1.67	2.00	2.33	2.67	3.00	3.33	4	4.67	5.33	6.00	6 67	8.00	10.00	18.33
ł							3.75	41%	5.25	6.00	6.75	7.50	9.00	11.25	15.00
ł							4.17	5	5.83	6.67	7.50	8.33	10.00	12.50	16.67
ı							4.58				8,25			13.75	
ı							5.00		7.00	8.00	9.00	10.00	12.00	15.00	20.00
н											-				_

EXPLANATIONS.—The rate per Week will be found in the top lines, and the Time, in the middle columns. For example, at \$7 per week, the wages for 4½ days will amount to \$5.25. The third line (in italic figures) shows the wages for one

day, at the rate of counting seven working days a week.

# Table of WAGES by the DAY. The 10 Hour System.

														_
\$1	14	11/2	134	\$2	$2\frac{1}{4}$	$ 2\frac{1}{2} $	Hours	23	\$3	31	$3\frac{1}{2}$	\$4	41/2	\$5
.10	.13	.15		.20	.23	.25	1	.28	.30					
.20	.25	,30	.35	.40	.45	.50	2	.55	.60					1.00
.30	.38	.45	.53	.60	.68	.75	3	.83	.90	.98	1.05	1.20	1.35	1.50
.40	ء50	.60			.90	1.00	4							2.00
.50	.63	.75	.88	1.00	1.13	1.25	5	1.38	1.50	1.63	1.75	2.00	2.25	2.50
.60	.75	.90	1.05	1.20	1.35	1.50	6	1.65	1.80	1.95	2.10	2.40	2.70	8.00
.70	.88	1.05	1.23	1.40	1 58	1.75	7	1.93	2.10	2.28	2.45	2.80	3.15	3.50
.80	1.00	1.20	1.40	1.60	1.80	2.00	8	2.20	2.40	2.60	2.80	8.20	3.60	4.00
.90	1.13	1.35	1.58	1.80	2.03	2.25	9	2.48	2.70	2.93	3.15	3.60	4.05	4.50
1.00	1 25	1.50	1.75	2.00	2.25	2.50	10	2.75	3.00	3.25	3.50	4.00	4.50	5.00

# Table of WAGES by the DAY. The 8 Hour System.

\$1	11	11/2	13	\$2	21	$2\frac{1}{2}$	Hours	23	\$3	31	$3\frac{1}{2}$	\$4	$4\frac{1}{2}$	\$5
.13	.16	.19	.22					.34	.38	.41	.44	.50	.56	
.25	.31	.38	.44	.50	.56	.63	2							1.25
.38	.47	.56	.66	.75	.84	.94	3	1.03	1.13	1.22	1.31	1.50	1.69	1.88
.50	.63	.75	.88	1.00	1.13	1.25	4	1.38	1.50	1.63	1.75	2.00	2.25	2.50
.63			1.09	1.25	1.41	1.56	5	1.72	1.88	2.03	2.19	2.50	2.81	3.13
.75	.94	1.13	1.31	1.50	1.69	1.88	6	2.06	2 25	2.44	2.63	3.00	3.38	3.75
.88	1.09	1.31	1 53	1.75	1.97	2.19	7	2.41	2.63	2.84	3 06	3 50	3.94	4.38
1.00	1.25	1.50	1.75	2.00	2.25	2.50	8	2.75	3.00	3.25	3.50	4.00	4 50	5.00

At the rate of \$2.25 per day, 4 hours' wages, by the ten hour system, will come to 90 cts.; and by the eight hour system, to \$1.13

# Table of Board or Rent, by the Week, showing it for Days.

.50	75	\$1	\$2	\$3	\$4	\$5	Days	\$6	\$8	\$9	10	11	12	15
04	.05	.07	.14								.71			1 07
.071.	.11	.14	.29	.43	.57	.71								
.14	20	.29	.57	.86	1.14	1.43						3.14		4.29
.21	32	.43	.86	1.29	1.71	2.14	3	2.57	3.43	3.86	4.29			
.29	43	.57	1.14	1.71	2.29	2.86	4							
.38	54	.71	1.43	2.14	2.86	3.57	5	4.29	5.71	6.48	7.14	7.86	8.57	10.71
.43	.64	.86	1.71	2.57	3.43	4.29	6	5.14	6.86	7.71	8.57	9.43	10.29	12.86
.50	75	1.00	2.00	8.00	4.00	5.00	7	8.00	8.00	9.00	10.00	11.00	12.00	15 00
	04 .07 .14 .21 .29 .38 43	04 .05 .07 .11 .14 .20 .21 .32 .29 .43 .36 .54 .43 .64	04 .05 .07 .07 .11 .14 .14 .20 .29 .21 .32 .43 .29 .43 .57 .36 .54 .71 .43 .64 .86	04 .05 .07 .14 .07 .11 .14 .29 .14 .20 .29 .57 .21 .32 .43 .36 .29 .43 .54 .71 1.43 .36 .54 .71 1.43 .43 .64 .86 1.71	04 :05 .07 .14 .21 .07 .11 .14 .29 .43 .14 .20 .29 .57 .86 .21 .32 .43 .85 1.29 .29 .43 .57 1.14 1.71 .38 .54 .71 1.43 2.14 .43 .64 .86 1.71 2.57	04 .05 .07 .14 .21 .29 .07 .11 .14 .20 .29 .43 .57 .86 1.14 .21 .32 .43 .85 1.29 1.71 .29 .43 .57 1.14 1.71 2.29 .88 .54 .71 1.43 2.14 2.86 .86 1.71 2.77 3.43 .86 1.71 2.77 3.43	04 :05 .07 .14 .21 .29 .36 .07 .11 .14 .20 .43 .57 .71 .14 .20 .29 .57 .86 1.14 1.43 .21 .29 .43 .57 .11 .14 .20 .29 .43 .86 1.29 1.71 2.14 .29 .43 .57 1.14 1.71 2.29 2.86 .38 .54 .71 1.74 2.75 .43 .42 .86 3.57	04 :05 .07 .14 .21 .29 .36 ¼ .07 .11 .14 .29 .43 .57 .71 1 .14 .29 .59 .57 .66 1.14 1.43 .2 .21 .32 .43 .86 1.29 1.71 2.14 .3 .2 .20 .43 .57 1.14 1.71 2.29 2.86 4 .38 .54 .71 1.74 3.24 2.86 3.57 .54 .364 .86 1.71 2.79 .43 4.29 6	04         105         .07         .14         .21         .29         .36         ½         .43           .07         .11         .14         .29         .43         .57         .71         1         .88           .14         .20         .29         .57         .86         1.14         1.43         2         1.71           .21         .32         .43         .35         1.29         1.71         2.14         2         2.57           .29         .43         .57         1.14         1.71         2.29         2.86         4         3.45           .38         .54         .71         .27         79         .43         4.29         6         5.14           .43         .64         .86         .71         .27         .79         .43         .42         .99         6         5.14	04         105         .07         .14         .21         .29         .36         ½         .43         .57           .07         .11         .14         .29         .43         .57         .71         1         .88         1.14           .14         .20         .29         .57         .86         1.14         1.43         2         1.71         2.29           .21         .32         .43         .36         1.29         1.71         2.14         3         2.57         3.43           .29         .43         .57         1.14         1.71         2.29         2.86         4         3.45         4.57           .38         .54         .71         1.73         2.73         4.34         2.99         6         5.14         6.86           .43         .64         .86         1.71         2.73         4.34         2.99         6         5.14         6.86	04         .05         .07         .14         .21         .29         .36         ½         .43         .57         .64           .07         .11         .14         .29         .43         .57         .71         1         .88         1.14         1.29           .14         .20         .29         .57         .86         1.14         1.43         2         1.71         2.29         2.57           .21         .32         .43         .35         1.29         1.71         2.14         3         2.57         3.43         3.83         3.83         4.29         3         3.57         5.14         3.84         4.57         5.14         3.84         4.57         5.14         3.84         4.57         5.14         3.84         4.57         5.14         6.86         7.71         5.73         4.34         4.29         6         5.14         6.86         7.71         6.86         7.84         4.29         6         5.14         6.86         7.71         6.86         7.71         6.86         7.84         4.29         6         5.14         6.86         7.71         6.86         7.84         4.29         6         5.14         6.86         <	04         :05         .07         .14         .21         .29         .36         ¼         .43         .57         .64         .71           .07         .11         .14         .29         .43         .57         .71         1         .88         1.14         1.29         1.43           .14         .20         .29         .57         .86         1.14         1.43         2         1.71         2.29         2.57         2.86           .21         .32         .43         .36         1.29         1.71         2.14         3         2.57         3.43         3.86         4.29           .29         .43         .57         1.14         1.71         2.29         2.88         4         3.46         4.57         5.14         5.71           .38         .54         .71         .73         .43         2.29         8.73         3.42         2.29         5.71         6.48         7.11         8.57         3.43         4.29         6         5.14         6.66         7.71         8.57         3.43         4.29         6         5.14         6.66         7.71         8.57         3.43         4.29         6         5.14	04         105         .07         .14         .21         .29         .36         ½         .43         .57         .64         .71         .79           .07         .11         .14         .29         .43         .57         .71         1         .86         1.14         .129         .143         1.57           .14         .20         .29         .57         .86         1.14         1.43         2         1.71         .29         .257         2.86         3.14           .21         .32         .43         .86         .129         1.71         .214         3         2.57         3.43         3.86         4.29         4.24         4.71         .629         4.71         .629         4.71         .629         .71         6.71         6.28         .71         .78         7.86         .78	.07     .11     .14     .29     .43     .57     .71     1     .86     1.14     1.29     1.43     1.57     1.71       .14     .20     .29     .57     .86     1.14     1.43     2     1.71     2.29     2.57     2.86     3.14     3.43       .21     .32     .43     .86     1.29     1.71     2.14     3     2.57     3.43     3.86     4.29     4.71     5.14       .29     .43     .57     1.14     1.71     2.29     2.86     4     3.46     4.57     5.14     5.71     6.29     6.86       .80     .54     .71     1.43     2.14     2.86     3.57     5     4.29     5.71     6.48     7.14     7.86     8.57

One day's board on rent, at \$4 per week, somes to 57 cts; at \$4.56, to 7 cts more.

Table of Wages by the Month from \$9.00 to \$75.00

\$9	10	11	12	13	14	Pays	15	16	17	18	19	20
.35	. <i>33</i>	-37 :42	.40	.43 .50	.47	1	.58	.53 .62	.65	.69	.63	67
:69	.77	:85	.92	1.00	1.08	2	1.15	1.23	1.31	1.38	1.46	1.54
1.04 1.38	1.15	1.27	1.38 1.85	1.50° 2.00°	1.62 2.15	3 4	1.73 2.31	1.85 2.46	1.96 2.62	2.08	2.19	2.81
1.73	1.92	2.12	2,81	2.50	2.69	5	2.88	3.08	3.27	3.46	3.65	3.85
2.08	2.31	2.54	2.77	3.00	3.23	6	3.46	3.69	3.92	4.15	4.38	4,62
2.42	2.69 3.68	2.96 3.38	3.23	3.50	3,77	7 8	4.62	4.31	4.58 5.23	4.85 5.54	5.12 5.85	5.38 6.15
3.12	3.46	3.81	4.15	4.5U	4.85	9	5.19	5 54	5.88	6.23	6.58	6.92
3.46	3.85 4.23	4.23	4.62 5.08	5.00 5.50	5.38 5.92	10	5.77 6.35	6.15	6.54 7.19	6.92 7.62	7.31 8.04	7 69 8.46
4.15	4.62	5 08	5.54	6 00	6.46	12	6.92	7.38	7.85	8.31	8.77	9.23
4.50	5 00	5.60	6.00	6.50	7.00	13	7.50 e.08	8.00	8.50 9.15	9.00	9.50 10.23	10.00
4.85 5.19	5.38	5.93 6.35	6.46	7.00	7.54 8.08	14	8,65	8.62 9.23	9.81	10.38	10.23	11.54
5.54	6.15	6.77	7.38	8.00	8.62	16	9.23	9.85				12 31
5.88 6.23	6.54	7.19 7.62	7 85 8.31	8,50 9,00	9.15 9.69	17 18	9.81 10.38	$10.46 \\ 11.08$	11.12	11.77 12.46	12.42 13.15	13.08
6.58	7.31	8.01	8.77	9.50	10.23	19	10.96	11. <b>6</b> 9 12.31	12.42	13.15	13.88	14.62
6.92	7.69 8.08	8.46 8.88	9.23	10.00 10.50	10 77 11.31	$\frac{20}{21}$	11.54 12.12	12.31 12.92	13.08 13.73	13.85 14.54	14.62 15.35	15 38 16.15
7.62	8.46	9,31	10.15		11.85	22	12.69	13.54	14.38	15.23	16.08	16 92
7.96	8.85	9.73	10.62		12.38	23	13.27		15.04	15.92	16.81	17.69
8.31 8.65	9.23	10.15. 10.58	11.08 11.54	12.00	12.92 13.46	24 25	13.85 14.42	14.77 15.38	15.69 16.35	16.62 17 31	17.54 18.27	18 46
			12.00							18.00		
- ah		4.										
811	owin	g the	Am	ount	for 1	Day	7, up	to 20	3 (WO	rking	) Da	ув.
21	22	g the	24	25	30	Days	7, up	to 20	45	rking 50	60	ys. 75
21	22	23	24	25 .83	30	Days	35	40	45	50	60	75
21 70 .81	22 73 .85	23 77 88	24	25 .83 .96	30 7.00 1.15	Days	35 7.77 1.35	40 7.33 1.54	45	50 1.67 1.92	60 2.00 2.31	7.5 2.50 2.88
21 70 .81 1.62 2.42	22 7,3 .85 1.69 2.64	23 77 88 1.77 2.65	24 .80 .82 1.85 2.77	25 .83 .98 1.92 2.88	30 7.00 1.15 2.31 3.46	Days	35 7.77 1.35 2.69 4.01	40 7.33 1.54 3.08 4 62	45 7.50 1.73 3.46 5.19	50 7.67 1.92 3.85 5.77	60 2.00 2.31 4.62 6.92	75 2.50 2.88 5.77 8.65
21 70 .81 1.62 2.42 3.23	73 .85 1.69 2.64 3.38	23 77 88 1.77 2.65 3.54	24 .80 .82 1.85 2.77 3.69	25 .83 .96 1.92 2.88 3.85	30 7.00 1.15 2.31 3.46 4.62	Days 1 1 2 3	35 7.77 1.35 2.69 4.01 5.38	40 7.33 1.64 3.08 4.62 6.15	45 7.50 1.73 3.46 5.19 6.92	50 7.67 1.92 3.85 5.77 7.69	60 2.00 2.31 4.62 6.92 9.23	75 2.50 2.88 5.77 8.65 11.54
21 70 .81 1.62 2.42 3.23 4.04 4.85	7.3 .85 1.69 2.64 3.38 4.23 5.08	23 77 88 1.77 2.65 3.54 4.42 5.31	24 .80 .82 1.85 2.77 3.69 4.62 5.54	25 .83 .96 1.92 2.88 3.85 4.81 5.77	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92	Days 1 1 2 3 4 5	35 7.77 1.35 2.69 4.01 5.38 6.73 8.08	40 7.33 1.64 3.08 4.62 6.15 7.69 9.23	45 7.50 1.73 3.46 5.19 6.92 8.65 10.38	50 7.67 1.92 3.85 5.77 7.69 9.62 11.54	60 2.00 2.31 4.62 6.92 9.23 11.54 13.85	75 2.50 2.88 5.77 8.65 11.54 14.42 17.31
21 70 .81 1.63 2.42 3.23 4.04 4.85 5.65	7.3 .85 1.69 2.64 3.38 4.23 5.08 5.92	23 77 88 1.77 2.65 3.54 4.42 5.31 6.19	24 .80 .82 1.85 2.77 3.69 4.62 5.54 6.46	25 .83 .96 1.92 2.88 3.85 4.81 5.77 6.73	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92 8.08	Days 1 1 2 3 4 5 6	35 7.77 1.35 2.69 4.01 5.38 6.73 8.08 9.42	40 7.33 1.64 3.08 4.62 6.15 7.69 9.23 10.77	45 7.50 1.73 3.46 5.19 6.92 8.65 10.38 12.12	50 7.67 1.92 3.85 5.77 7.69 9.62 11.54 13.46	60 2.30 2.31 4.62 6.92 9.23 11.54 13.85 16.15	75 2.50 2.88 5.77 8.65 11.64 14.42 17.31 20.19
21 70 .81 1.62 2.42 3.23 4.04 4.85	7.3 .85 1.69 2.64 3.38 4.23 5.08 5.92 6.77 7.62	23 77 88 1.77 2.65 3.54 4.42 5.31 6.19 7.08 7.96	24 .80 .82 1.85 2.77 3.69 4.62 5.54 6.46 7.38 8.31	25 -83 .96 1.92 2.88 3.85 4.81 5.77 6.73 7.69 8.65	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92	Days 1 1 2 3 4 5	35 7.77 1.35 2.69 4.01 5.38 6.73 8.08	40 7.33 1.64 3.08 4.62 6.15 7.69 9.23	45 7.50 1.73 3.46 5.19 6.92 8.65 10.38	50 7.67 1.92 3.85 5.77 7.69 9.62 11.54	60 2.00 2.31 4.62 6.92 9.23 11.54 13.85	75 2.50 2.88 5.77 8.65 11.64 14.42 17.31 20.19 23.08 25.96
21 70 .81 1.62 2.42 3.23 4.04 4.85 5.65 6.46 7.27 8.08	22 7,3' .85 1.69 2.64 3.38 4.23 5.08 5.92 6.77 7.62 8.46	23 77 88 1.77 2.65 3.54 4.42 5.31 6.19 7.48 7.96 8.85	24 .80 .82 1.85 2.77 3.69 4.62 5.54 6.46 7.38 8.31 9.23	25 -83 -98 1.92 2.88 3.85 4.81 5.77 6.73 7.69 8.65 9.62	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92 8.08 9.23 10.38 11.54	Days 1 1 2 3 4 5 6 7 8 9	35 7.77 1.35 2.69 4.01 5.38 6.73 8.08 9.42 10.77 12.12 13.46	40 7.33 1.54 3.08 4.62 6.15 7.69 9.23 10.77 12.31 13.85 15.38	45 7.50 1.73 3.46 5.19 6.92 8.65 10.38 12.12 13.65 15.58 17.31	50 7.67 1.92 3.85 5.77 7.69 9.62 11.54 13.46 15.38 17.31 19.23	60 2.00 2.31 4.62 6.92 9 23 11.54 13.85 16.15 18.46 20.77 23.68	75 2.50 2.88 5.77 8.65 11.64 14.42 17.31 20.19 23.08 25.96 28.85
21 70 .81 1.62 2.42 3.23 4.04 4.85 5.65 6.46 7.27	7.3 .85 1.69 2.64 3.38 4.23 5.08 5.92 6.77 7.62	23 77 88 1.77 2.65 3.54 4.42 5.31 6.19 7.08 7.96	24 .80 .82 1.85 2.77 3.69 4.62 5.54 6.46 7.38 8.31	25 -83 .96 1.92 2.88 3.85 4.81 5.77 6.73 7.69 8.65	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92 8.08 9.23 10.38 11.54 12.69	Days 1 1 2 3 4 5 6 7 8 9 10 11	35 7.77 1.35 2.69 4.01 5.38 6.73 8.08 9.42 10.77 12.12 13.46 14.81	40 7.33 1.54 3.08 4.62 6.15 7.69 9.23 10.77 12.31 13.85 15.38 16.92	45 7.50 1.73 3.46 5.19 6.92 8.65 10.38 12.12 13.65 15.58 17.31 19.04	50 7.67 1.92 3.85 5.77 7.69 9.62 11.54 13.46 15.38 17.31 19.23 21.15 23.08	60 2.00 2.31 4.62 6.92 9 23 11.54 13.85 16.15 18.46 20.77 23.68 25.38	75 2.50 2.88 5.77 8.65 11.64 14.42 17.31 20.19 23.08 25.96 28.85 31.73
21 70 .81 1.82 2.42 3.23 4.04 4.85 5.65 6.46 7.27 8.08 8.88 9.69 10.50	22 7,3 .85 1.69 2.64 3.38 4.23 5.08 5.92 6.77 7.62 8.46 9.31 10.15	23 77 88 1.77 2.65 3.54 4.42 5.31 7.48 7.48 6.85 9.73 10.62 11.50	24 .80 .92 1.85 2.77 3.69 4.62 5.54 6.46 7.38 9.23 10.15 11.08 12.00	25 .96 1.92 2.88 3.85 4.81 5.77 6.73 7.69 8.65 9.62 10.58 11.54 12.50	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92 8.08 9.23 9.23 10.38 11.54 12.69 13.65 15.00	Days 11 22 34 56 78 910 11 12 13	35 1.77 1.35 2.69 4.01 5.38 6.73 8.08 9.42 10.77 12.12 13.46 14.81 16.15 17.50	40 7.33 1.54 3.08 4.62 6.15 7.69 9.23 10.77 12.31 13.85 15.38 16.92 18.46 20.00	45 7.50 1.73 3.46 5.19 6.92 8.65 10.38 12.12 13.65 15.58 17.31 19.04 20.77 22.50	50 7.67 1.92 3.85 5.77 7.69 9.62 11.54 13.46 15.38 17.31 19.23 21.15 23.08 25.00	60 2.00 2.31 4.62 9.23 11.54 13.85 16.15 18.46 20.77 23.68 25.38 27.69 30.00	75 2.50 2.88 5.77 8.65 11.54 14.42 17.31 20.19 23.08 25.96 28.85 31.73 34.62 37.50
21 70 .81 1.82 2.42 3.23 4.04 4.85 5.65 6.46 7.27 8.08 8.88 9.69 10.50 11.31	22 7,3 .85 1.69 2.64 3.38 4.23 5.08 5.92 6.77 7.62 8.46 9.31 10.15 11.00 11.85	23 77 88 1.77 2.65 3.54 4.42 5.31 6.19 7.96 8.85 9.73 10.62 11.50 12.38	24 .80 .92 1.85 2.77 3.69 4.62 5.54 6.46 7.38 8.31 9.23 10.15 11.08 12.00 12.92	25 .96 1.92 2.88 3.85 4.81 5.77 6.73 7.69 8.65 9.62 10.58 11.54 12.50 13.46	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92 8.08 9.23 10.38 11.54 12.69 13.65 15.00 16.15	Days 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14	35 1.77 1.35 2.69 4.01 5.38 6.73 8.08 9.42 10.77 12.12 13.46 14.81 16.15 17.50 18.85	40 7.33 1.54 3.08 4.62 6.15 7.69 9.23 10.77 12.31 13.85 15.38 16.92 18.46 20.00 21.54	45 7.50 1.73 3.46 5.19 6.865 10.38 12.12 13.85 15.58 17.31 19.04 20.77 22.50 24.23	50 7.67 1.92 3.85 5.77 7.69 9.62 11.54 13.46 15.38 17.31 19.23 21.15 23.08 25.00 26.92	60 2.00 2.31 4.62 6.92 9.23 11.54 13.85 16.15 18.46 20.77 23.68 25.38 27.69 30.00 32.31	75 2.50 2.88 5.77 8.65 11.54 14.42 17.31 23.08 25.96 28.85 31.73 34.62 40.38
21 70 .81 1.6? 2.42 3.23 4.04 4.85 5.65 6.46 7.27 8.08 9.69 10.50 11.31 12.12 12.92	22 7,3 .85 1.69 2.64 3.38 4.23 5.08 5.92 6.77 7.62 8.46 9.31 10.15 11.85 11.69 12.69 13.54	23 77 88 1.77 2.65 3.54 4.42 5.31 6.19 7.96 8.85 9.73 10.62 11.50 12.38 13.27 14.15	24 -80 92 1.85 2.77 3.69 4.62 5.54 6.46 7.38 9.23 10.15 11.08 12.00 12.90 13.85 14.77	25 -83 -98 1.98 3.85 4.81 5.77 6.73 7.69 8.65 9.62 10.58 11.54 12.50 13.46 14.42 15.38	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92 8.08 9.23 10.38 11.54 12.69 13.85 15.00 16.15 17.31 18.46	Days 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	35 7.77 1.35 2.69 4.01 5.38 6.73 8.08 9.42 10.77 12.12 13.46 14.81 16.15 17.50 18.85 20.10 21.54	40 7.33 1.54 3.08 4.62 6.15 7.69 9.23 10.77 12.31 13.85 15.38 16.92 18.46 20.00 21.54 23.08 24.62	45 7.50 1.73 3.46 5.19 6.92 8.65 10.38 12.12 13.65 17.31 19.04 20.77 22.50 24.23 25.96 27.69	50 7.67 1.92 3.85 5.77 7.69 9.62 11 54 13.46 15.33 17.31 19.23 21.15 23.08 25.00 26.92 28.85 30.77	60 2.00 2.31 4.62 9.23 11.54 13.85 16.15 18.46 20.77 23.68 25.38 27.69 30.00 32.31 34.62 36.92	75 2.50 2.88 5.77 8.65 11.64 14.42 17.31 20.19 23.08 25.96 21.73 34.62 37.50 40.38 40.38 43.27 46.15
21 70 .81 1.62 2.42 3.23 4.04 4.85 5.65 6.46 7.27 8.08 8.88 9.69 10.50 11.31 12.12 12.92 13.73	22 7,37 .859 2.64 3.388 4.23 5.08 6.77 7.62 8.46 9.31 10.15 11.00 11.85 12.69 13.54 14.38	23 787 88 1.77 2.65 3.54 4.42 5.31 6.19 7.96 8.85 9.73 10.62 11.50 12.38 13.27 14.15 15.04	24 .80 .82 2.77 3.69 4.62 5.54 6.738 8.31 9.23 10.15 11.08 12.00 12.92 13.85 14.77 15.69	25 .96 .98 2.88 3.85 4.81 5.77 7.69 8.65 9.62 10.58 11.54 12.50 13.46 14.42 15.38 16.35	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92 8.08 9.23 10.38 11.54 12.69 13.85 15.00 16.15 17.31 18.46 19.62	Days 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	35 7.77 1.35 2.69 4.01 5.38 6.73 8.08 9.42 10.77 12.12 13.46 14.81 16.15 17.50 18.85 20.10 21.54 22.88	40 7.33 1.54 3.06 4.62 6.15 7.69 9.23 10.77 12.31 13.85 15.38 16.92 18.46 20.00 21.54 23.08 24.62 26.15	45 7.50 1.73 3.46 5.19 6.92 8.65 10.38 10.38 11.31 12.12 13.65 15.58 17.31 19.04 20.77 22.50 24.23 25.96 29.42	50 7.67 1.92 3.85 5.77 7.69 9.62 11 5.46 15.38 17.31 19.23 22.15 23.08 25.00 26.92 28.82 30.77 82.69	60 2.00 2.31 4.62 9.23 11.54 13.85 16.15 18.46 20.77 23.68 25.38 27.69 30.00 32.31 34.62 36.92 39.23	75 2.50 2.88 5.77 8.65 11.65 11.442 17.31 20.19 23.08 23.08 23.08 31.73 34.62 37.50 40.38 43.27 46.15 49.04
21 70 .81 1.6? 2.42 3.23 4.04 4.85 5.65 6.46 7.27 8.08 8.88 9.69 10.50 11.31 12.12 12.92 13.73 14.54 15.35	22 7,3 .855 1.69 2.64 3.38 4.23 6.77 7.62 8.46 9.31 10.15 11.05 11.85 12.69 13.54 14.33 16.08	23 788 1.77 2.65 3.54 4.42 5.31 6.19 7.48 7.96 8.85 9.73 10.62 11.50 12.38 13.27 14.15 15.04 15.92 16.81	24 .802 1.85 2.77 3.69 4.62 5.54 6.46 7.38 8.31 10.15 11.08 12.00 12.92 13.85 14.77 15.69 16.62 17.54	25 -93 -96 1.92 2.88 3.85 4.81 5.77 6.73 7.69 8.62 10.58 11.54 12.50 13.46 14.42 15.38 16.35 11.827	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92 8.08 9.23 10.38 11.54 12.69 13.85 15.00 16.15 16.15 17.31 18.46 19.62 20.77 21.92	Days 11 22 34 56 67 89 10 11 11 12 13 14 11 15 16 17 18	35 7.77 1.35 2.69 4.01 5.38 6.73 8.68 9.42 10.77 12.12 13.46 14.81 16.15 17.50 20.10 21.54 22.88 24.23 25.58	40 7.33 1.54 8.08 4.62 6.15 7.69 9.23 10.77 12.31 13.85 16.92 18.46 20.00 21.54 23.08 24.62 27.69 29.23	45 7 50 1.73 3.46 5.19 6.92 8.65 10.38 12.12 13.85 15.58 17.31 19.04 20.77 22.50 24.23 24.23 24.23 25.96 27.69 29.42 31.15 32.68	50 7.67 1.92 3.85 5.77 7.69 9.62 11 54 13.46 15.33 17.31 19.23 21.15 23.08 25.00 26.92 28.85 30.77	60 2.00 2.31 4.62 9.23 11.54 13.85 16.15 18.46 20.77 23.68 25.38 27.69 30.00 32.31 34.62 36.92	75 2.50 2.88 5.77 8.65 11.54 11.42 17.31 20.19 23.09 25.96 28.83 31.62 37.50 40.38 43.27 46.15 49.04 55.81
21 70 .81 1.82 2.42 3.23 4.04 4.85 5.65 6.46 7.27 8.08 8.88 9.69 10.50 11.31 12.12 12.92 13.73 14.54 15.35 16.15	22 7,3 .855 1.69 2.64 3.38 4.23 6.77 7.62 8.46 9.31 10.15 11.85 11.00 11.85 12.69 13.54 14.38 15.23 16.92	23 788 1.77 2.65 3.54 4.42 5.31 6.19 7.48 7.98 8.85 9.73 10.62 11.50 12.38 13.27 14.15 15.04 15.92 16.81 17.69	24 .80 1.85 2.77 8.69 4.62 5.54 6.46 7.38 8.31 9.23 10.15 11.08 12.00 12.92 13.85 16.62 17.54 18.46	25 -83 1.92 2.88 3.85 4.81 5.77 6.73 7.62 10.58 11.54 12.50 13.46 14.38 16.35 17.31 18.27 19.23	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92 8.08 9.23 10.38 11.54 12.69 13.85 15.00 16.15 17.31 18.46 19.62 20.77 21.92 23.08	Days 11 22 34 56 66 77 89 90 101 112 113 114 115 116 117 118 119 120	35 7.77 1.35 2.69 4.01 5.38 6.73 8.68 9.42 10.77 12.12 13.46 14.81 16.15 17.50 21.54 22.88 24.23 25.58 26.92	40 7.33 1.548 4.62 6.15 7.69 9.23 10.77 12.31 13.85 15.38 16.92 18.46 20.00 21.54 23.08 24.62 26.15 27.69 29.23 30.77	45 7 50 1.73 3.46 5.19 6.92 8.63 10.38 12.12 13.85 15.58 17.31 19.04 20.77 22.50 24.23 25.96 27.69 29.42 31.15 32.88 34,62	50 7.67 1.92 3.85 5.77 7.69 9.62 11.346 15.38 17.31 19.23 21.15 23.08 25.00 26.92 26.92 30.77 32.69 34.62 36.54 38.46	60 2.31 4.62 6.92 9 23 11.54 13.85 16.15 18.46 20.77 23.68 27.69 30.00 32.31 34.62 36.92 39.23 41.54 43.85 44.85 44.85	75 2.50 2.88 5.77 8.65 11.54 11.44 17.31 20.19 23.08 25.98 25.98 31.73 34.62 37.50 40.38 43.27 44.15 49.04 51.92 54.69
21 70 .81 1.6? 2.42 3.23 4.04 4.85 5.65 6.46 7.27 8.08 8.88 9.69 10.50 11.31 12.12 12.92 13.73 14.54 15.35	22 7,3 .855 1.69 2.64 3.38 4.23 6.77 7.62 8.46 9.31 10.15 11.05 11.85 12.69 13.54 14.33 16.08	23 788 1.77 2.65 3.54 4.42 5.31 6.19 7.48 7.96 8.85 9.73 10.62 11.50 12.38 13.27 14.15 15.04 15.92 16.81	24 .80 1.85 2.77 3.69 4.62 5.54 6.46 7.38 10.15 11.00 12.92 13.85 14.75 15.69 16.62 17.54 18.46 19.38	25 -83 -98 1.92 2.88 3.85 5.77 6.73 7.69 9.62 10.58 11.54 12.50 13.46 14.42 15.35 17.31 18.27 19.23 20.19	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92 8.08 9.23 10.38 11.54 12.69 13.65 15.00 16.15 17.31 18.46 19.62 20.77 21.92 23.08 24.23	Days 11 12 34 45 66 78 90 10 11 11 12 13 11 11 11 11 11 11 11 11 11 11 11 11	35 7.77 1.35 2.69 4.01 5.38 6.73 8.08 9.42 10.77 12.12 13.46 14.81 16.15 20.10 21.54 22.88 24.23 25.58 24.23 25.58	40 7.33 1.54 3.06 4.62 6.15 7.69 9.23 10.77 12.31 13.85 15.38 16.92 18.46 20.00 21.54 23.08 24.62 26.15 27.69 29.23 30.77 32.31	45 7 50 1.73 3.46 5.19 6.92 8.65 10.38 12.12 13.65 17.31 19.04 22.50 24.23 25.96 27.69 29.42 31.15 32.68 36.35	50 7.67 1.92 3.85 5.77 7.69 9.62 11.54 13.46 15.38 17.31 19.23 21.15 23.08 25.00 26.92 28.85 30.77 32.69 34.62 86.54 38.54 38.54	60 2.31 4.62 6.92 9.23 11.54 13.85 16.15 18.46 20.77 23.68 25.38 27.69 30.00 32.31 34.62 36.92 39.23 41.54 43.85 46.15	75 2.50 2.88 5.77 8.65 11.64 14.42 17.31 23.08 25.86 31.73 34.62 37.50 34.62 37.50 46.15 40.38 43.27 46.16 51.92 54.81 51.92 54.81 56.95 60.58
21 70 .81 1.82 2.42 3.23 4.04 4.85 5.65 6.46 6.727 8.08 8.88 9.69 10.50 11.31 12.12 12.92 13.73 14.54 15.35 16.15 16.96 17.77 18.58	22 7,3 .85 1,69 2,64 4,23 5,08 6,77 6,76 2,6 8,46 11,00 11,85 11,00 11,85 11,00 11,85 11,69 11,78 11,7	23 77 88 88 1.77 2.65 3.54 4.42 5.31 6.19 7.96 8.85 9.11 10.62 11.50 12.38 10.62 11.50 16.81 17.60 18.58 19.46 20.35	24 -80 -82 1.85 2.77 3.69 4.62 5.54 6.46 7.38 8.31 10.15 11.08 12.00 12.92 13.85 14.75 16.62 17.54 18.46 19.38 20.33 20.33	25 .96 1.92 2.88 3.85 3.85 5.77 6.73 8.65 9.62 11.54 12.50 13.46 11.54 12.50 13.46 11.54 12.50 13.45 14.42 15.38 16.35 17.31 19.23 20.19 21.15 22.12	30 1.15 2.31 3.46 4.62 5.77 6.92 8.08 8.08 11.54	Days 1 1 2 2 3 4 4 5 6 6 7 8 9 10 11 2 12 3 14 15 5 16 6 7 17 8 19 20 2 2 2 2 2 2 3	35 1.35 2.69 4.01 5.38 8.68 9.42 10.77 12.12 13.46 14.15 17.50 22.88 24.23 22.88 26.92 22.82 30.96	40 7.33 1.54 3.08 4 62 6.15 7.69 9.23 11.3.85 15.38 11.3.85 12.31 11.3.85 12.31 11.3.85 12.31 12.31 13.85 14.62 20.00 21.54 22.6.15 22.6.15 22.6.23 30.77 32.31 32.31 32.31 33.85 34.85 35 35 35 35 35 35 35 35 35 35 35 35 35	45 7.56 1.73 3.46 5.19 6.692 8.65 10.38 12.12 12.12 13.65 15.58 17.31 19.04 20.77 22.50 24.23 36.35 36.35 36.36 36 36 36 36 36 36 36 36 36 36 36 36 3	50 7.67 1.92 3.85 5.77 7.69 9.62 11.54 13.46 13.46 15.38 17.31 19.23 25.00 26.92 28.85 30.77 32.69 34.62 40.38 44.31 44.23	60 2.31 4.62 6.92 9.23 11.54 13.85 11.54 13.85 16.46 20.77 23.68 257.69 30.00 32.31 41.54 46.45 46.45 46.45 50.77 55.08	7.5 2.50 2.88 5.77 8.65 11.64 14.42 17.31 20.19 23.98 25.96 28.85 31.73 34.62 37.50 40.38 43.27 44.04 49.04 49.04 63.66 63.66 63.66
21 70 81 1.62 2.42 3.23 4.04 4.85 5.65 6.46 7.27 8.08 8.88 9.69 10.50 11.31 12.12 12.92 13.73 14.54 15.35 16.15 16.96 17.77 18.58 19.38	22 7,37 .85 1,69 2,64 4,23 3,38 4,23 5,08 6,77 7,62 8,46 11,00 11,15 11,15 11,15 11,15 11,15 11,15 11,15 11,15 11,15 11,15 11,18 11,	77, 88 1.77, 88 1.77, 2.65, 3 3.54, 4.42, 5.31, 7.96, 6.19 7.98, 8.85, 9.73 10.62, 11.50, 11.50, 12.38 13.27, 14.15, 92, 16.81, 17.60,	24 .80 .82 1.85 2.77 4.62 5.54 4.62 5.54 6.46 7.38 8.31 12.00 12.00 12.02 13.85 14.76 14.7	25 -87 -96 1.92 2.88 4.81 5.77 7.69 8.65 10.58 11.54 11.54 11.53 11.53 11.53 11.53 11.53 11.53 12.30 12.19 22.11 22.12 22.30	30 7.00 1.15 2.31 3.46 4.62 5.77 6.92 10.38 9.23 10.38 11.54 112.69 13.65 15.00 118.46 20.77 21.92 22.77 21.92 23.28 24.23 25.38 26.76 27.69	Days 1 1 2 3 4 4 5 6 6 7 8 9 0 1 1 1 2 3 1 4 5 1 6 1 7 1 1 8 9 2 1 2 2 2 3 4 1 5 1 6 1 7 1 8 9 2 2 2 3 4 1 6 1 7 1 8 9 2 2 2 3 4 1 6 1 7 8 9 1 8	35 1.35 2.69 4.01 10.77 12.12 10.77 12.12 11.85 11.85 20.10 21.54 22.55.88 24.23 25.26,92 22.69 22.69 23.31	40 	45 1.73 3.46 5.19 8.65 10.38 8.65 10.38 15.58 15.58 20.77 22.596 32.68 34.62 36.33 38.08 34.62 36.33 38.08 34.62 34.63 34.63 38.08 34.63	50 7.67 7.69 3.85 5.77 9.62 9.62 11.54 615.38 17.31 19.23 21.15 23.08 22.8.85 30.79 34.62 36.54 42.31 44.23 44.23 44.23	60 2.31 4.62 6.92 9.23 11.54 13.85 18.46 20.77 25.38 32.31 34.62 36.92 36.92 41.54 43.85 44.85 44.85 50.77 55.88	75 2.50 2.88 5.77 11.54 11.42 117.31 20.19 23.68 28.85 31.73 46.15 49.04 49.04 49.04 49.05 66.34 66.33 66.33
21 70 .81 1.69 2.42 3.23 4.04 4.85 5.65 6.46 6.7.27 8.08 8.88 9.69 10.50 11.31 12.12 13.73 14.54 15.35 16.15 16.96 17.77 18.58 19.38 20.19	7.3 85 1.69 2.64 4.23 5.92 6.77 7.62 6.77 7.62 11.00 11.85 11.00 11.85 11.00 11.85 11.00 11.85 11.00 11.85 11.00 11.85 11.00 11.85 11.00 11.85 11.00 10.00 1	23 777 888 1.777 3.54 4.42 5.31 7.48 9.73 11.50 11.38 11.50	24 -80 -82 1.85 2.77 3.69 4.62 5.54 6.46 7.38 8.31 10.15 11.08 12.00 12.92 13.85 14.75 16.62 17.54 18.46 19.38 20.33 20.33	25 -87 -96 1.92 2.88 4.81 5.77 6.73 7.69 9.62 10.58 112.50 13.46 14.42 115.38 16.35 17.31 19.23 20.19 22.12 22.12 23.08	30 7.00 1.15 2.31 6.4.62 5.77 6.92 8.08 9.23 11.54 12.69 9.13 11.50 11.51 11.84 11.8	Days 1 1 2 3 4 4 5 6 6 7 8 9 0 1 1 1 2 1 3 1 1 4 1 1 5 6 1 7 1 1 8 1 2 0 2 2 2 2 3 4 2 5	35 1,77 1,35 2,69 4,01 4,01 4,01 5,38 8,68 9,42 10,77 11,50	7.33 7.1.54 8.086 4 622 7.699 9.23 10.77 12.31 11.538 16.92 21.548 22.6.15 27.699 30.77 32.31 33.85 33.85 33.85 36.92	45 1.73 3.46 5.19 8.65 5.19 10.38 12.12 13.65 117.31 19.04 24.23 25.96 31.15 32.58 34.62 36.35 34.62 36.35 34.62 36.35 36.36 36 36.36 36.36 36.36 36.36 36.36 36.36 36.36 36.36 36.36 36.36 36.3	50 7.67 1.92 3.85 5.77 7.69 9.62 113.46 15.38 119.23 21.15 22.00 26.92 23.67 32.69 34.62 38.46 44.23 144.23 44.13	60 2.00 2.31 4.62 9.23 11.54 13.85 16.15 18.46 25.38 25.38 30.00 32.31 34.62 44.54 44.85 44.85 44.85 46.15 55.69	7.5 2.50 2.88 5.77 8.65 11.64 14.42 17.31 20.19 23.98 25.96 28.85 31.73 34.62 37.50 40.38 43.27 44.04 49.04 49.04 63.66 63.66 63.66

The center column shows the days and the black face figures at the top show rate per month. Example—21 days' work at \$30 per month; find it under 30, opposite 21. Answer, \$24.23.

### READY RECKONER.

READY RECKONER, to find the Price of any Number of Pounds, Yarda Pieces, or Bushels, from 2 cents to \$3.00.

The first column contains the NUMBER, the top columns the PRICES.

Nos	2 ct.	3 ct.	4 ct.	5 ct.	6 ct.	61/4 ct.	7 ct.	8 ct.	9 ct.	10 ct.	11 ct.
2	. 4	. 6	. 8	.10	.12	1216	.14	.16	.18	.20	.22
2 3 4 5 6 7 8 9	. 6	. 9	.12	.15	.18	.121/3	.21	.24	.27	.30	.33
4	. 8	.12	.16	.20	.24	.25	.28	-32	.36	.40	.44
5	.10 .12	.15	.20 .24	.25	.30	.31¼ .37½ .43¾	.35 .42	.40	.45 .54	.50 .60	.55 -66
7	.14	.21	.28	.35	.42	.433/	.49	.56	.63	.70	.77
8	.16	.24	.32	.40	.48	.50	.56	.64	.72	.80	.88
9	.18	.27	.36	.45	.54	.56 <sup>1</sup> / <sub>4</sub> .62 <sup>1</sup> / <sub>2</sub>	.63	.72	.81	.90 1.00	.99
10 11	.20	.30	.40	.50 .55	·60	.683/4	.70	.80	.99	1.10	1,10 1.21
12	.24	.36	.48	.60	-66 .72	.75	.84	.96	1.08	1.20	1.32
13	.26 .28	.39	.52 .56	.65	.78	.811/4	.91	1.04	1.17	1.30	1.43
14	28	.42	.56	.70	.84	.871/2	.98	1.12 1.20	1.26 1.35	1.40 1.50	1.54 1.65
15 16	.30	.45 .48	.60	.75 .80	.90	1.00	1.05 1.12	1.28	1.44	1.60	1.76
17	.34	.51	.68	-85	1.02	1.061/4	1.19	1.36	1.53	1.70	1.87
18	.36	.54	.72	.90	1.08	$1.06^{1}/_{4}$ $1.12^{1}/_{5}$ $1.18^{3}/_{4}$	1.26	1.44	1.62	1.80	1.98
19	.38	.57	.76	.95	1.14 1.20	1.183/4	1.33	1.52 1.60	1.71 1.80	1.90	2.09
20 25	.40 .50	.60 .75	.80 1.00	1.00 1.25	1.50	1.561/	1.75	2.00	2.25	2.50	2. 5
30 40	-60	.90	1.20	1.50	1.80	1.56 <sup>1</sup> / <sub>2</sub> 1.87 <sup>1</sup> / <sub>2</sub>	2.10	2.40	2.70	3.00	3.30
40	-60 -80	1.20	1.60	2.00	2.40	2.50	2.80	3.20	3.60	4.00	4.40
50	1.00 1.20	1.50 1.80	2.00 2.40	2.50 3.00	3.00	3.12½ 3.75	3.50 4.20	4.00	4.50	5.00 6.00.	5.50 6.60
60 70	1.40	2.10	2.80	3.50	4.20	4.371/4	4.90	5.60	6.30	7.00	7.70
80	1.60 1.80	2.40	3.20	4.00	4.80	5.00	5.60	6.40	7.20	8.00	8.80
90	1.80	2.70	3.60	4.50	5.40	5.621/2	6.30	7.20 -8.00	8.10 9.00	9.00	9.90 11.00
100	2.00	3,00	4.00	5.00	6.00	6.25	7.00	1 40.00	3.00	1 10.00	11.00
-				-							
Nos		12½ct.		14 ct.	15 ct.	16 ct.	18 ct.	18¾ct.	19 ct.	20 ct.	21 ct.
-	12 ct.	12½ct.	13ct.	14 ct.	15 ct.	-32	18 ct.	18¾ct.	.38	.40	.42
-	12 ct.	12½ct.	13et.	14 ct.	15 ct. .30 .45	.32	18 ct. .36 .54	18¾ct. .37¼ .56¼	.38 .57	.40	.42
2 3 4	12 ct. .24 .36 .48	12½ct.	13et. .26 .39 .52	.28 .42 .56	.30 .45	.32 .48 .64	18 ct. .36 .54 .72	18¾ct. .37¼ .56¼	.38 .57	.40 .60	.42 .63 .84
2 3 4 5 6	.24 .36 .48 .60	.25 .371/ .50 .621/ .75	13et. .26 .39 .52 .65 .78	.28 .42 .56 .70	.30 .45 .60	.32 .48 .64 .80	18 ct. .36 .54 .72 .90 1.08	18¾ct. .37¼ .56¼	.38 .57	.40 .60 .80 1.00 1.20	.42 .63 .84 1.05 1.26
2 3 4 5 6 7	12 ct. .24 .36 .48 .60 .72 .84	12½ct. .25 .37½ .50 .62½ .75	13et. .26 .39 .52 .65 .78 .91	.28 .42 .56 .70 .84	.30 .45 .60	.32 .48 .64 .80	18 ct. .36 .54 .72 .90 1.08 1.26	18¾ct. .37¼ .56¼	.38 .57	.40 .60 .80 1.00 1.20 1.40	.42 .63 .84 1.05 1.26 1.47
2 3 4 5 6 7 8	.24 .36 .48 .60 .72 .84 .96	12½ct25 .37½ .50 .62½ .75 .87½	13et. .26 .39 .52 .65 .78 .91	.28 .42 .56 .70 .84 .98	.30 .45 .60	.32 .48 .64 .80	18 ct. .36 .54 .72 .90 1.08 1.26 1.44	18 <sup>3</sup> / <sub>4</sub> ct. .37 <sup>1</sup> / <sub>4</sub> .56 <sup>4</sup> / <sub>4</sub> .75 .93 <sup>3</sup> / <sub>4</sub> 1.13 <sup>1</sup> / <sub>4</sub> 1.50	.38 .57 .76 .95 1.14 1.33 1.52	.40 .60 .80 1.00 1.20 1.40 1.60	.42 .63 .84 1.05 1.26 1.47 1.68
2 3 4 5 6 7 8 9	12 ct. .24 .36 .48 .60 .72 .84 .96 1.08	12½ct. .25 .37½ .50 .62½ .75 .87½ 1.00	13et. .26 .39 .52 .65 .78 .91 1.04 1.17	.28 .42 .56 .70 .84 .98 1.12 1.26	.30 .45 .60 .75 .90 1.05 1.20 1.35	.32 .48 .64 .80 .96 1.12 1.28 1.44 1.60	18 ct. .36 .54 .72 .90 1.08 1.26 1.44 1.62 1.80	183/4ct. 371/2 .564/4 .75 .933/4 1.121/2 1.311/4 1.50 1.688/4	.58 .57 .76 .95 1.14 1.33 1.52 1.71 1.90	.40 .60 .80 1.00 1.20 1.40 1.60 1.80 2.00	.42 .63 .84 1.05 1.26 1.47 1.68 1.89 2.10
2 3 4 5 6 7 8 9 10	12 ct. .24 .36 .48 .60 .72 .84 .96 1.08 1.20 1.32	12½ct.  .25 .37½ .50 .62½ .75 .87½ 1.00 -1.12½ 1.25 1.37½	13et. 266 399 52 652 788 91 1.04 1.17 1.30 1.43	28 .42 .56 .70 .84 .98 1.12 1.26 1.40 1.54	30 .455 .600 .755 .900 1.055 1.200 1.355 1.500 1.655	.32 .48 .64 .80 .96 1.12 1.28 1.44 1.60 1.76	18 ct. .36 .54 .72 .90 1.08 1.26 1.44 1.62 1.80	183/4 ct. -371/4 .561/4 .75 .933/4 1.121/2 1.311/4 1.50 1.688/4 1.871/2 2.061/4	.58 .57 .76 .95 1.14 1.33 1.52 1.71 1.90 2.09	.40 .60 .80 1.00 1.20 1.40 1.60 1.80 2.00 2.20	.42 .63 .84 1.05 1.26 1.47 1.68 1.89 2.10 2.31
2 3 4 5 6 7 8 9 10 11	12 ct. .24 .36 .48 .60 .72 .84 .96 1.08 1.20 1.32 1.44	12½ct.  .25 .37½ .50 .62½ .75 .87½ 1.00 -1.12½ 1.25 1.37½	13et. .26 .39 .52 .65 .78 .91 1.04 1.17 1.30 1.43 1.56	.28 .42 .56 .70 .84 .98 1.12 1.26 1.40 1.54	.30 .45 .60 .75 .90 1.05 1.20 1.35 1.50	.32 .48 .64 .80 .96 1.12 1.28 1.44 1.60 1.76 1.92	18 ct.  -36 -54 -72 -90 1.08 1.26 1.44 1.62 1.80 1.98 2.16	183/4 ct. .371/4 .564/4 .75 .933/4 1.121/4 1.50 1.688/4 1.871/4 2.067/4 2.25	.38 .57 .76 .95 1.14 1.33 1.52 1.71 1.90 2.09 2.28	.40 .60 .80 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40	.42 .63 .84 1.05 1·26 1.47 1.68 1.89 2.10 2.31 2.52
2 3 4 5 6 7 8 9 10 11 12 13	12 ct.  .24 .36 .48 .60 .72 .84 .96 1.08 1.28 1.32 1.44 1.56	12½ct. 25 37½ 50 62½ 75 87½ 1.00 1.12½ 1.25 1.37½ 1.50	13et. .26 .39 .52 .65 .78 .91 1.04 1.17 1.30 1.56 1.69	.28 .42 .56 .70 .84 .98 1.12 1.26 1.40 1.68 1.82	.30 .45 .60 .75 .90 1.05 1.20 1.35 1.50 1.60 1.80	.32 .48 .64 .80 .96 1.12 1.28 1.44 1.60 1.76 1.92 2.08	18 ct. -36 -54 -72 -90 1.08 1.26 1.44 1.62 1.80 1.98 2.16 2.34	183/4 ct. 371/4 .564/4 .75 .933/4 1.121/2 1.311/4 1.50 1.688/4 1.871/2 2.061/4 2.25 2.433/4	.38 .57 .76 .95 1.14 1.33 1.52 1.71 1.90 2.09 2.28 2.47	.40 .60 .80 1.00 1.20 1.40 1.60 2.20 2.40 2.20 2.40 2.60 2.80	.42 .63 .84 1.05 1.26 1.47 1.68 1.89 2.10 2.31 2.52 2.73 2.94
2 3 4 5 6 7 8 9 10 11 12 13 14 15	12 ct.  .24 .36 .48 .60 .72 .84 .96 1.08 1.20 1.32 1.44 1.56 1.68	12½ct. 25 .37½ .50 .62½ .75 .87½ 1.00 1.12½ 1.25 1.37½ 1.50 1.62½ 1.75 1.87½	13et. 26 39 52 65 78 91 1.04 1.17 1.30 1.43 1.56 1.89	.28 .42 .56 .70 .84 .98 1.12 1.26 1.40 1.54 1.82	.30 .45 .60 .75 .90 1.05 1.20 1.35 1.50 1.65 2.10 2.25	.32 .48 .64 .80 .96 1.12 1.28 1.44 1.60 1.76 1.92 2.08 2.24 2.40	18 ct. -36 -54 -72 -90 1.08 1.26 1.44 1.62 1.80 1.98 2.16 2.34 2.52 2.70	183/4 ct. -371/4 .664/4 .75 .933/4 1.121/7 1.311/7 1.50 1.683/4 1.871/2 2.061/4 2.25 2.433/4 2.621/2 2.811/4	.38 .57 .76 .95 1.14 1.33 1.52 1.71 1.90 2.09 2.28 2.47 2.66 2.85	.40 .60 .80 1.00 1.20 1.40 1.60 2.20 2.40 2.60 2.80 3.00	.42 .63 .84 1.05 1.26 1.47 1.68 1.89 2.10 2.31 2.52 2.73 2.94 3.15
2 3 4 5 6 7 8 9 10 11 12 13 14 15	12 ct. .24 .36 .48 .60 .72 .84 .96 1.20 1.32 1.44 1.56 1.68 1.80 1.92	25 .371/2 .50 .621/2 .75 .871/2 1.00 1.121/2 1.25 1.370 1.621/2 1.75 1.871/2 2.00	13et. .26 .39 .65 .78 .91 1.04 1.17 1.43 1.56 1.82 1.95 2.08	14 ct. .28 .42 .56 .70 .84 .98 1.12 1.26 1.40 1.54 1.68 1.82 1.96 2.10	15 ct .30 .45 .60 .75 .90 1.05 1.20 1.35 1.50 1.65 2.10 2.25 2.40	.32 .48 .64 .80 .96 1.12 1.28 1.44 1.60 1.76 1.92 2.08 2.24 2.40 2.56	18 ct. -36 -54 -72 -90 1.08 1.26 1.44 1.62 1.80 1.98 2.16 2.34 2.52 2.70 2.88	183/4 ct. 371/3 564/4 .75 .933/4 1.50 1.688/4 1.871/2 2.0621/2 2.433/4 2.621/2 2.811/4 3.00	.38 .57 .76 .95 1.14 1.33 1.52 1.71 1.90 2.09 2.28 2.47 2.66 2.85 3.04	.40 .60 .80 1.00 1.20 1.40 1.60 2.20 2.40 2.60 2.80 3.00 3.20	,42 ,63 ,84 1.05 1.26 1.47 1.68 1.89 2.10 2.31 2.52 2.73 2.94 3.15 3.36
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	12 ct. -24 -36 -48 -60 -72 -84 -96 1.08 1.32 1.44 1.56 1.68 1.80 1.92 2.04	12½ct25 -37½ -50 -62½ -75 -87½ 1.00 -1.12½ 1.25 1.37½ 1.50 1.62½ 1.75 1.87½ 2.00 2.12½	13et. 26 39 65 65 78 91 1.04 1.17 1.43 1.56 1.82 1.95 2.06 2.06 2.06 2.06 2.06 2.06 2.06 2.06 3.09 1.04 1.17 1.06	14 ct. .28 .42 .56 .70 .84 .98 1.12 1.26 1.40 1.54 1.82 1.96 2.10 2.24	.30 .45 .60 .75 .90 1.20 1.35 1.50 1.65 2.10 2.25 2.40	.32 .48 .64 .80 .96 1.12 1.28 1.44 1.60 1.76 1.92 2.08 2.24 2.40 2.56 2.72	18 ct. -36 -54 -72 -90 1.08 1.26 1.44 1.62 1.80 1.98 2.16 2.34 2.52 2.70 2.88 3.06	183/4 ct. 371/3 564/4 .75 .933/4 1.50 1.688/4 1.871/2 2.0621/2 2.433/4 2.621/2 2.811/4 3.00	.38 .57 .76 .95 1.14 1.33 1.52 1.71 1.90 2.09 2.28 2.47 2.66 2.85 3.04	.40 .60 .80 1.00 1.20 1.40 1.60 2.20 2.40 2.20 2.40 2.80 3.20 3.20 3.20	.42 .63 .84 1.05 1.26 1.47 1.68 1.89 2.10 2.31 2.52 2.73 2.94 3.15 3.36 3.57
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	12 ct. .24 .36 .48 .60 .72 .84 .96 1.08 1.20 1.32 1.44 1.56 1.80 1.92 2.04 2.16	25 .371/4.50 .621/4.75 .871/1.00 .1.121/4.1.25 1.371/1.50 1.621/4.1.75 1.871/4.2.00 2.121/4.2.25	13et. -26 .59 .65 .78 .91 1.04 1.17 1.30 1.43 1.56 .2 1.65 2.2 1.95 2.2 2.2 2.2 2.2 2.2 2.2 2.3 2.3	14 ct. .28 .42 .56 .70 .84 .98 1.12 1.26 1.40 1.54 1.82 1.96 2.10 2.24 2.38 2.52	.30 .45 .60 .75 .90 1.05 1.25 1.50 1.65 1.85 2.10 2.25 2.40 2.55 2.70	.32 .48 .64 .80 .96 1.12 1.28 1.44 1.60 1.76 1.92 2.08 2.24 2.40 2.56 2.72 2.88	18 ct. -36 -54 -72 -90 1.08 1.26 1.44 1.62 1.80 1.98 2.16 2.34 2.52 2.70 2.88 3.06 3.24	183/4 ct. 371/3 564/4 .75 .933/4 1.50 1.688/4 1.871/2 2.0621/2 2.433/4 2.621/2 2.811/4 3.00	.36 .57 .76 .96 1.14 1.33 1.52 1.71 1.90 2.09 2.28 2.47 2.466 2.85 3.04 3.23 3.42 3.61	.40 .60 .80 1.00 1.20 1.40 1.60 2.20 2.40 2.60 3.00 3.20 3.40 3.60	.42 .63 .84 1.05 1·26 1.47 1.68 1.89 2.10 2.31 2.52 2.73 2.94 3.15 3.36 3.57 3.78
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	12 ct. .24 .36 .48 .60 .72 .84 .96 1.08 1.32 1.44 1.56 1.68 1.89 2.04 2.16 2.28	25 .371/ .50 .621/ .75 .871/ 1.00 1.125/ 1.25 1.371/ 1.50 1.623/ 1.75 1.871/ 2.00 2.122/ 2.25/ 2.371/ 2.50	13et. -26 -39 -52 -65 -78 -2 -1.04 1.17 1.30 1.43 1.56 2.169 2.21 2.21 2.21 2.21 2.24 2.21 2.24 2.25 2.26 2.27	14 ct. .28 .42 .56 .70 .84 .98 1.12 1.26 1.40 1.54 1.82 1.96 2.10 2.24 2.38 2.52 2.66	.30 .45 .60 .75 .90 1.05 1.20 1.35 1.50 1.65 2.10 2.25 2.40 2.55 3.00	.32 .48 .64 .80 .96 1.12 1.28 1.44 1.60 1.76 1.92 2.08 2.24 2.40 2.56 2.72 2.88 3.04	18 ct.  -36 -54 -72 -90 -1.08 -1.26 -1.44 -1.62 -1.80 -1.98 -2.16 -2.34 -2.52 -2.70 -2.88 -3.06 -3.24 -3.42 -3.62 -3.60	1834 ct. 	.56 .57 .76 .95 1.14 1.33 1.52 1.71 1.90 2.09 2.28 2.47 2.46 6.2.85 3.04 3.23 3.42 3.61 3.80	.40 .60 .80 1.20 1.40 1.60 2.20 2.40 2.20 3.00 3.20 3.20 3.40 3.60 3.80 4.00	.42 .63 .84 1.05 1.26 1.47 1.68 1.89 2.10 2.31 2.52 2.73 2.94 3.15 3.36 3.57 3.78 3.99 4.20
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5 6	1.10	1.15	1.20	1.25	1.30	1.35	1.40	1.45	1.50	1.55	1.56 <sup>1</sup> / <sub>4</sub> 1.87 <sup>1</sup> / <sub>2</sub> 2.18 <sup>3</sup> / <sub>4</sub>
6	1.32	1.38	1.44	1.50	1.56 1.82	1.62	1.68 1.93	1.74 2.03	1.80 2.10	1.86 2.17	1.871/2
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9	1.98	2.07	2.16	2.25	2.34	2.43	2.52	2.61	2.70	2.79	2.811/4 3.121/2 3.433/4
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15	3.30	3.45	3.60	3.75	3.90	4.05	4.20	4.35	4.50	4.55	4.683
16	3.52	3.68	3.84	4.00	4.16	4.32	4.48	4.64	4.80	4.96	5.00
17 18	3.74 3.96	3.91 4.14	4.08 4.32	4.25 4.50	4.42 4.68	4.59 4.86	4.76 5.04	4.93 5.22	5.10 5.40	5.27 5.58	5.621/2
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25 30	6.60	6.90	7,20	7.50	7.80	8.10	8.40	7.25 8.70	7.25 9.00	9.30	7.81 <sup>1</sup> / <sub>2</sub> 9.37 <sup>1</sup> / <sub>2</sub>
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-	.64 .96 1.28	33ct .66 .99 1.32	33½ct.	34 ct	.70 1.05 1.40	36 ct. .72 1.08 1.44	37 et. .74 1.11 1.48	37½ct75 1.12½ 1.50	38 ct.	39 et. .78 1.17 1.56 1.95	80 1.20 1.60
-	.64 .96 1.28 1.60 1.92	33ct .66 .99 1.32 1.05 1.98	33½ct. .66⅔ 1.00 1.33⅓ 1.66⅔ 2.00	34 ct 68 1.02 1.36 1.70 2.04	.70 1.05 1.40 1.75 2.10	.72 1.08 1.44 1.80 2.16	37 ct. .74 1.11 1.48 1.85 2.22	37½ct75 1.12½ 1.50 1.87½ 2.25	38 ct.  .76 1.14 1.52 1.90 2.28	39 et. .78 1.17 1.56 1.95	80 1.20 1.60 2.00 2.40
-	.64 .96 1.28 1.60 1.92 2.24	33ct .66 .99 1.32 1.05 1.98 2.31	33½ct. .66⅔ 1.00 1.33⅓ 1.66⅔ 2.00	34 ct 68 1.02 1.36 1.70 2.04	.70 1.05 1.40 1.75 2.10 2.45	36 ct.  .72 1.08 1.44 1.80 2.16 2.52	37 ct.  .74 1.11 1.48 1.85 2.22 2.59	37½ct75 1.12½ 1.50 1.87½ 2.25 2.62½	38 ct. .76 1.14 1.52 1.90 2.28 2.66	39 ct. .78 1.17 1.56 1.95 2.34 2.73	80 1.20 1.60 2.00 2.40 2.80
-	.64 .96 1.28 1.60 1.92 2.24 2.56 2.88	33ct -66 -99 1.32 1.05 1.98 2.31 2.64 2.97	33½ct. .66⅔ 1.00 1.33⅓ 1.66⅔ 2.03⅓ 2.06⅔ 2.33⅓ 2.66⅔	.68 1.02 1.36 1.70 2.04 2.38 2.72 3.06	.70 1.05 1.40 1.75 2.10 2.45 2.80 3.15	.72 1.08 1.44 1.80 2.16 2.52 2.88 3.24	37 ct.  .74 1.11 1.48 1.85 2.22 2.59 2.96	37½ct75 1.12½ 1.50 1.87½ 2.25 2.62½ 3.00 3.37½	.76 1.14 1.52 1.90 2.28 2.66 3.04 3.42	39 ct. .78 1.17 1.56 1.95 2.34 2.73 3.12 3.51	.80 1.20 1.60 2.00 2.40 2.80 3.20
-	.64 .96 1.28 1.60 1.92 2.24 2.56 2.88 3.20	33ct -66 -99 1.32 1.55 1.98 2.31 2.64 2.97 3.30	33½ct. .66⅔ 1.00 1.33⅓ 1.66⅔ 2.03⅓ 2.06⅔ 2.33⅓ 2.66⅔	34 ct  68 1.02 1.36 1.70 2.04 2.38 2.72 3.06 3.40	35 ct .70 1.05 1.40 1.75 2.10 2.45 2.80 3.15 3.50	36 ct. .72 1.08 1.44 1.80 2.16 2.52 2.88 3.24 3.60	37 ct. .74 1.11 1.48 1.85 2.22 2.59 2.96 3.33 3.70	37½ct75 1.12½ 1.50 1.87½ 2.25 2.62½ 3.00 3.37½ 3.75	38 ct. .76 1.14 1.52 1.90 2.28 2.66 3.04 3.42 3.80	39 ct. .78 1.17 1.56 1.95 2.34 2.73 3.12 3.51 3.90	80 1.20 1.60 2.00 2.40 2.80 3.20 3.60 4.00
-	.64 .96 1.28 1.60 1.92 2.24 2.56 2.88 3.20 3.52	.66 .99 1.32 1.55 1.98 2.31 2.64 2.97 3.30	33½ct. .66⅔ 1.00 1.33⅓ 1.66⅔ 2.00 2.33⅓ 2.66⅔ 3.00 3.33⅓ 3.66⅔ 4.00	34 ct  .68 1.02 1.36 1.70 2.04 2.38 2.72 3.06 3.40 3.74	35 ct .70 1.05 1.40 1.75 2.10 2.45 2.80 3.15 3.50 3.85	36 ct. .72 1.08 1.44 1.80 2.16 2.52 2.88 3.24 3.60	37 ct. .74 1.11 1.48 1.85 2.22 2.59 2.96 3.33 3.70 4.07	37½et75 1.12½ 1.50 1.87½ 2.25 2.62½ 3.00 3.37½ 3.75 4.12½	38 ct.  .76 1.14 1.52 1.90 2.28 2.66 3.04 3.42 3.80 4.18	39 et. .78 1.17 1.56 1.95 2.34 2.73 3.12 3.51 3.90 4.29	80 1.20 1.60 2.00 2.40 2.80 3.20 3.60 4.00 4.40
-	.64 .96 1.28 1.60 1.92 2.24 2.56 2.88 3.20 3.52 3.84 4.16	33ct .66 .99 1.32 1.55 1.98 2.31 2.64 2.97 3.30 3.63 3.96 4.29	33½ct. .66⅔ 1.00 1.33⅓ 1.66⅔ 2.00 2.33⅓ 2.66⅔ 3.00 3.33⅓ 3.66⅔ 4.00	34 ct  .68 1.02 1.36 1.70 2.04 2.38 2.72 3.06 3.40 3.74 4.08 4.42	35 ct  .70 1.05 1.40 1.75 2.10 2.45 2.80 3.15 3.50 3.85 4.20 4.55	36 ct.  .72 1.08 1.44 1.80 2.16 2.52 2.88 3.24 3.60 3.96 4.32 4.68	37 ct. .74 1.11 1.48 1.85 2.22 2.59 2.96 3.33 3.70 4.07 4.44 4.81	37½et.  75 1.12½ 1.50 1.87½ 2.25 2.62½ 3.00 3.37½ 4.12½ 4.50 4.87½	38 ct. .76 1.14 1.52 1.90 2.28 2.66 3.04 3.42 3.80 4.18 4.50 4.94	39 ct. .78 1.17 1.56 1.95 2.34 2.73 3.12 3.51 3.90 4.29 4.68 5.07	80 1.20 1.60 2.00 2.40 2.80 3.20 3.60 4.00 4.40 4.80 5.20
2 3 4 5 6 7 8 9 10 11 12 13 14	.64 .96 1.28 1.60 1.92 2.24 2.56 2.88 3.20 3.52 3.84 4.16 4.48	33ct .66 .99 1.32 1.55 1.98 2.31 2.64 2.97 3.36 3.96 4.29 4.62	33½et. .66½ 1.00 1.33⅓ 1.66⅔ 2.00 2.33⅓ 2.66⅓ 3.00 3.33⅓ 4.00 4.33⅓ 4.66⅔ 4.00 4.33⅓	34 ct .68 1.02 1.36 1.70 2.04 2.38 2.72 3.06 3.40 3.74 4.08 4.42 4.76	35 ct .70 1.05 1.40 1.75 2.10 2.45 2.80 3.15 3.50 3.85 4.20 4.55 4.90	36 ct. .72 1.08 1.44 1.80 2.16 2.52 2.88 3.24 3.60 4.32 4.68 5.04	37 ct.  .74 1.11 1.48 1.85 2.22 2.59 2.96 3.33 3.70 4.07 4.44 4.81 5.18	37½ct.  .75 1.12½ 1.50 1.87½ 2.25 2.62½ 3.00 3.37½ 4.12½ 4.50 4.87½ 5.25	38 ct.  .76 1.14 1.52 1.90 2.28 2.66 3.04 3.42 3.80 4.18 4.50 4.91 5.32	39 ct. 1.17 1.56 1.95 2.34 2.73 3.12 3.51 3.90 4.29 4.68 5.07 5.46	80 1.20 1.60 2.00 2.40 2.80 3.20 3.60 4.00 4.40 4.80 5.20 5.60
2 3 4 5 6 7 8 9 10 11 12 13 14 15	.64 .96 1.28 1.60 1.92 2.24 2.56 2.88 3.20 3.52 4.16 4.48 4.80 5.12	33ct -60 -99 1.32 1.55 1.98 2.31 2.64 2.97 3.30 3.63 3.96 4.29 4.95 5.28	33½et. .66½ 1.00 1.33⅓ 1.66⅔ 2.00 2.33⅓ 2.66⅓ 3.00 3.33⅓ 4.00 4.33⅓ 4.66⅔ 4.00 4.33⅓	34 ct  .68 1.02 1.36 1.70 2.04 2.38 2.72 3.06 3.40 3.74 4.08 4.42 4.76 5.10 5.44	35 ct .70 1.05 1.40 1.75 2.10 2.45 2.80 3.15 3.50 3.85 4.20 4.55 4.90 5.25 5.60	36 ct. .72 1.08 1.44 1.45 2.16 2.52 2.88 3.24 3.60 3.96 4.32 4.68 5.04 5.76	37 ct. .74 1.11 1.48 1.85 2.22 2.59 2.96 3.33 3.70 4.44 4.81 5.18 5.55 5.92	37½et.  .75 1.12½ 1.50 1.87½ 2.25 2.62½ 3.00 3.37½ 4.12½ 4.50 4.87½ 5.25 6.60½	38 ct. -76 1.14 1.52 1.90 2.28 2.66 3.04 3.42 3.80 4.18 4.56 4.94 5.32 5.70 6.08	39 ct. 1.78 1.17 1.56 1.95 2.34 2.73 3.12 3.51 3.90 4.29 4.68 6.07 5.46 5.85 6.24	80 1.20 1.60 2.00 2.40 2.80 3.20 3.60 4.00 4.40 5.20 5.60 6.00 6.40
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	.64 .96 1.28 1.60 1.92 2.24 2.56 2.88 3.20 3.52 3.84 4.16 4.48 4.80 5.12 5.44	33ct -60 -99 1.32 1.55 1.98 2.31 2.64 2.97 3.30 3.63 3.96 4.29 4.95 5.28 5.61	331/2ct. -662/3 1.00 1.331/4 1.662/3 2.00 2.331/3 3.662/3 4.00 4.331/4 5.00 5.331/3 5.662/3	34 ct  68 1.02 1.36 1.70 2.04 2.38 2.72 3.06 3.40 3.74 4.08 4.42 4.76 5.10 5.44 5.78	35 ct  .70 1.05 1.40 1.75 2.10 2.45 2.80 3.15 3.50 3.85 4.20 4.55 4.90 5.25 5.60 5.95	36 ct. .72 1.08 1.44 1.80 2.16 2.52 2.52 3.24 3.60 3.96 4.32 4.68 5.04 5.76 6,12	37 ct. .74 1.11 1.48 1.85 2.22 2.59 3.33 3.70 4.07 4.44 4.41 5.18 5.55 5.92 6.29	37½et.  .75 1.12½ 1.50 1.87½ 2.25 2.62½ 3.00 3.37½ 4.12½ 4.50 4.87½ 5.25 6.60 6.37½	38 ct. .76 1.14 1.52 1.90 2.28 2.66 3.04 3.42 3.80 4.18 4.50 4.94 5.32 5.70 6.08 6.46	39 ct. .78 1.17 1.56 1.95 2.34 2.73 3.12 3.51 3.90 4.29 4.68 5.07 5.46 6.85 6.24 6.63	80 1.20 1.60 2.00 3.20 3.20 3.20 3.60 4.00 4.40 4.80 5.60 6.00 6.80
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	.64 .96 1.28 1.60 1.92 2.24 2.56 2.88 3.20 3.52 4.16 4.48 4.80 5.12	33ct -60 -99 1.32 1.55 1.98 2.31 2.64 2.97 3.30 3.63 3.96 4.29 4.95 5.28	33½ct. 	34 ct  688 1.02 1.36 1.70 2.04 2.38 2.72 3.06 3.40 3.74 4.08 4.42 4.76 5.10 5.44 5.78 6.12	35 ct .70 1.05 1.40 1.75 2.10 2.45 2.80 3.15 3.50 3.85 4.20 5.25 5.69 6.30	36 ct. .72 1.08 1.44 1.80 2.16 2.52 2.88 3.24 3.60 3.96 4.32 4.68 5.04 5.76 6.12 6.48	37 ct.  .74 1.11 1.48 1.85 2.22 2.59 2.96 3.33 3.70 4.44 4.81 5.18 5.55 5.92 6.66	37½et75 1.12½ 1.50 1.87½ 2.25 2.62½ 3.00 3.37½ 4.12½ 4.50 4.87½ 6.00 6.37½ 6.75	38 ct. .76 1.14 1.52 1.90 2.28 2.66 3.04 3.42 3.80 4.18 4.50 4.94 5.32 5.70 6.08 6.46	39 ct. -78 1.17 1.56 1.95 2.34 2.73 3.12 3.51 3.90 4.29 4.68 5.85 6.24 6.63 7.02	80 1.20 1.60 2.00 2.40 2.80 3.20 3.60 4.00 4.80 5.20 6.00 6.40 6.80 7.20
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	.64 .96 1.28 1.60 1.92 2.24 2.56 2.88 3.20 3.52 3.84 4.16 4.48 5.12 5.44 5.76 6.08 6.40	33ct .99 1.32 1.55 1.98 2.31 2.64 2.97 3.30 3.63 3.96 4.29 4.62 4.95 5.28 5.61 5.94 6.60	33½ct. 	34 ct  688 1.02 1.36 1.70 2.04 2.38 2.72 3.06 3.40 3.74 4.08 4.42 4.76 5.10 5.78 6.12 6.46 6.80	35 ct .70 1.05 1.40 1.75 2.10 2.45 2.80 3.15 3.50 3.85 4.20 5.25 4.90 5.25 6.30 6.63 6.63 6.70	36 ct. .72 1.08 1.44 1.80 2.16 2.52 2.88 3.24 3.60 3.96 4.32 4.32 5.76 6.12 6.48 6.84 6.84 7.20	37 ct.  .74 1.11 1.48 1.85 2.22 2.59 2.96 3.33 3.70 4.07 4.44 4.1 5.18 5.55 5.92 6.66 7.03 7.40	37½et.  .75 1.12½ 1.50 2.25 2.62½ 3.00 3.37½ 4.12½ 4.50 4.87½ 5.62½ 6.00 6.37½ 6.75 7.12½	38 ct. -76 1.14 1.52 1.90 2.28 2.66 3.04 3.42 3.80 4.18 4.50 4.94 5.32 5.70 6.08 6.84 7.22 7.60	39 et. 1.78 1.17 1.56 1.95 2.34 2.73 3.12 3.51 3.90 4.29 4.68 5.07 5.46 5.85 6.24 6.63 7.02 7.41 7.80	40 ct. 80 1.20 1.00 2.40 2.80 3.20 3.60 4.40 4.80 5.60 6.40 6.80 7.20 7.80 8.00
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25 30 40	.64 .96 1.28 1.60 1.92 2.24 2.56 2.88 3.20 3.52 3.84 4.16 4.48 4.80 5.12 5.44 5.76 6.08 6.40 8.00 9.60 13.80	33ct -60 -99 1.32 1.55 1.98 2.31 2.64 2.97 3.30 3.63 3.96 4.29 4.62 4.95 5.51 6.61 6.27 6.60 8.25	33½ct. -66⅔ 1.00 1.33½ 2.00 2.33½ 3.00 3.33¼ 4.00 4.33⅓ 4.66⅔ 5.00 5.33⅓ 6.66⅙ 6.03⅓ 6.66⅙ 8.33⅓	34 ct .68 1.02 1.36 1.70 2.04 2.38 2.72 3.06 3.40 4.08 4.42 4.76 5.10 5.48 6.12 6.46 6.80 8.50 10.20 13.60	35 ct .70 1.05 1.40 2.10 2.45 2.80 3.15 3.50 4.20 4.55 5.60 5.95 6.30 6.65 7.00 8.75 10.50 14.00	36 ct.  .72 1.08 1.44 1.80 2.16 2.52 2.88 3.24 3.60 4.32 4.68 4.540 5.76 6.12 6.48 6.84 7.20 9.00 10.80	37 ct.  .74 1.11 1.48 1.85 2.22 2.59 3.33 3.70 4.44 4.81 5.55 5.92 6.66 7.03 7.40 9.25 11.10	371/2et.  -75 1.121/2 1.50 1.871/2 2.251/2 2.621/2 3.00 3.371/2 4.50 4.711/2 6.00 6.371/2 6.751/2 6.751/2 9.371/2 1.25	38 ct. .76 1.14 1.52 1.90 2.28 2.66 3.42 3.82 3.82 4.94 4.53 4.94 5.32 5.70 6.96 6.84 7.22 7.60 9.50 11.40 15.20	39 ct. 1.17 1.56 1.95 2.34 2.73 3.11 3.51 3.90 4.68 5.07 5.46 6.63 7.02 7.41 7.80 9.75 11.70	40 ct. 80 1.20 1.20 2.40 2.40 3.20 3.20 3.20 3.4.00 4.40 4.5.20 5.60 6.80 7.20 7.20 7.80 10.00 11.00 12.00
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25 30 40	.64 .96 1.28 1.60 1.92 2.24 2.56 2.88 3.20 3.52 3.84 4.16 4.48 4.80 5.12 5.44 5.76 6.08 8.00 9.60 13.80 16.00	33ct .60 .99 1.32 2.31 2.64 2.97 3.30 3.363 3.96 4.29 4.95 5.28 6.27 6.61 5.94 6.27 9.90 8.25 9.90	331/2ct. .662/3 1.00 1.331/3 1.662/3 2.007 2.331/3 2.064/3 3.307 3.331/3 4.007/3 4.007/3 5.007/3 5.007/3 5.007/3 6	34 ct  .688 1.022 1.366 1.70 2.04 2.383 2.72 2.72 3.06 3.40 3.74 4.08 4.42 4.76 5.10 5.44 5.78 6.12 6.46 6.80 10.20 13.60 17.00	35 ct -70 1.05 1.40 2.10 2.45 2.10 3.50 3.50 3.55 4.20 4.55 4.90 5.95 6.65 7.00 8.75 10.50 14.00 17.50	36 ct.  .72 1.08 1.44 1.80 2.16 2.52 2.88 3.24 3.60 3.96 4.32 4.68 5.04 5.76 6.12 6.12 6.84 7.20 10.80 10.80 14.40 118.00	37 ct.  .74 1.11 1.48 1.85 2.22 2.59 2.96 3.33 4.07 4.44 5.18 5.55 6.29 6.60 7.03 7.40 9.25 11.10 14.80 18.50	371/2 et	38 ct. .76 1.14 1.52 1.90 2.28 2.66 3.04 3.42 3.42 3.42 3.42 5.70 6.08 6.46 6.84 6.84 7.22 7.60 9.50 11.40 15.20 19.00	39 et.  1.78 1.17 1.56 1.95 2.34 2.73 3.12 3.51 3.90 4.29 4.68 5.07 5.46 6.63 7.02 7.41 7.80 9.75 11.70 15.60 19.50	40 ct. 80 1.20 2.00 2.00 2.80 3.20 4.40 4.80 5.20 6.40 6.80 7.20 6.80 7.20 10.00 10.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25 30 40	.64 .96 1.28 1.60 1.92 2.24 2.56 2.88 3.20 3.52 3.84 4.16 4.48 5.12 5.44 5.76 6.08 6.40 8.00 9.60 13.80 16.00	33ct .60 .99 1.32 1.35 1.98 2.31 2.64 2.97 3.30 3.36 3.36 4.29 4.95 5.61 6.27 6.60 9.90 12.20 16.50 19.80	33½ct. .66½ 1.00 1.33½ 1.66½ 2.00¾ 3.33½ 4.66½ 4.00 4.33¼ 4.66½ 6.06½ 8.33½ 6.66½ 8.33½ 10.00 11.33¼	34 ct .68 1.02 1.36 1.70 2.04 2.38 2.72 3.06 3.40 3.74 4.08 4.42 4.76 5.10 5.10 6.46 6.80 8.50 10.20 13.60 17.00 20.44	35 ct 	36 ct.  72 1.08 1.44 1.80 2.16 2.52 2.88 3.24 3.96 4.32 4.62 4.62 4.62 6.12 6.48 7.20 9.00 14.40 18.00 18.00	37 ct.	37½ct.  -75 1.12½ 1.50 1.87½ 2.25 2.62½ 3.00 3.37½ 4.12½ 4.50 4.87½ 6.00 4.87½ 6.75 7.12½ 7.50 9.37½ 11.25 15.00 18.75	38 ct. -76 1.14 1.52 1.90 2.28 2.66 3.04 3.42 3.80 4.94 4.94 4.94 4.94 6.84 7.60 9.60 11.40 15.20 19.00 19.00 12.80	39 ct. -78 1.17 1.56 1.95 2.34 2.73 3.12 3.51 3.90 4.29 4.68 5.07 5.46 6.63 7.02 7.41 7.80 9.75 11.76 19.56	40 ct. 80 1.20 1.60 2.00 2.40 3.20 3.20 3.20 3.20 3.60 4.00 4.40 4.80 5.20 6.00 6.40 7.20 7.80 10.00 11.00 12.00 12.00 24.00 24.00 24.00 24.00 25.00 26.00
2 3 4 4 5 6 7 8 9 9 10 11 12 13 14 15 16 17 18 19 20 25 50 60 70 80	.64 .96 1.28 1.60 1.92 2.24 2.56 2.28 3.52 3.52 3.52 4.16 6.44 5.76 6.08 6.40 9.60 119.20 22.56 6.00	33ct -66 -99 1.32 2.31 1.45 2.31 2.97 3.30 4.29 4.62 9.5 5.28 5.61 6.20 9.90 12.20 12.20 23.10 2	331/2ct662/3 1.00 1.331/3 1.664/3 2.00 2.331/3 2.062/3 3.064/3 4.00 5.331/3 5.664/3 6.00 5.331/3 10.664/3 8.331/3 10.664/3 8.331/3 10.664/3 20.00 23.331/3	34 ct	35 ct70 1.05 1.40 1.75 2.10 2.10 2.10 3.15 3.85 4.20 5.25 6.30 6.30 6.30 1.050 11.050 11.050 12.50 2.80 12.80	36 ct. .72 1.08 1.44 1.80 2.16 2.52 2.88 3.24 4.32 4.32 4.32 4.32 6.48 5.04 5.40 6.12 6.48 7.20 9.00 9.10 1.80 1.40	37 ct.  .74 1.11 1.48 1.85 2.22 2.59 2.96 3.70 4.07 4.44 4.81 5.55 5.92 6.66 6.66 9.25 11.10 11.80 12.20 25.90 29.60	37½et.  .75 1.12½ 1.50 1.87½ 2.25½ 3.00 2.62½ 3.75½ 4.12½ 4.50 6.87½ 6.75 6.37½ 11.25 6.75 11.25 6.75 11.25 6.75 11.25 6.75 11.25 6.75 11.25 15.00 18.75 22.50 26.25 26.25	38 ct.  .76 1.14 1.52 1.90 2.28 2.66 3.04 3.42 3.80 4.18 4.56 4.94 5.70 6.08 6.46 6.84 7.22 7.60 9.60 11.40 15.20 11.90 22.80 26.60 30.40	39 ct. .78 1.17 1.56 1.95 2.34 2.71 2.73 2.73 2.73 2.73 2.73 2.75 2.75 2.75 2.75 2.75 2.75 2.75 2.75	40 ct. 80 1.20 2.40 2.80 3.60 4.40 4.80 5.20 5.60 6.40 6.80 7.20 7.20 7.80 10.00 12.00 24.00 24.00 24.00 25.00 32.
2 3 4 5 6 7 7 8 9 9 10 11 11 12 13 14 15 16 17 18 19 20 5 40 5 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	.64 .96 1.28 1.60 2.24 2.56 2.88 3.52 3.52 4.48 4.80 6.40 13.80 16.00 13.80 16.00 22.40 22.40 25.68 8.80	33ct -66 -99 1.32 1.35 2.31 2.64 4.29 4.62 4.95 5.61 6.60 8.25 6.60 12.20 16.50 19.80 23.10 23.10 26.40 29.70	331/2ct662/3 1.00 1.331/3 1.664/3 2.00 2.331/3 2.062/3 3.064/3 4.00 5.331/3 5.664/3 6.00 5.331/3 10.664/3 8.331/3 10.664/3 8.331/3 10.664/3 20.00 23.331/3	34 ct .68 1.02 2.04 3.74 1.36 1.70 2.04 4.42 4.76 6.12 6.46 6.80 10.20 11.20 1	35 ct70 1.05 1.40 1.75 2.10 2.10 3.50 3.50 3.85 5.25 5.60 5.25 5.60 14.00 17.50 24.50 24.50 24.50 24.50 24.50 24.50 24.50 24.50 24.50 28.00 17.50	36 ct.  .72 1.08 1.44 1.80 2.16 2.52 2.88 3.24 3.36 4.32 4.68 5.04 5.76 6.12 6.18 6.84 7.20 10.80 10.80 11.40 11.60 21.60	37 ct.  .74 1.11 1.48 1.85 2.22 2.59 2.96 3.33 3.70 4.07 4.44 4.81 5.18 5.92 6.29 6.66 7.03 7.03 7.03 18.50 9.25 18.50 9.25 9.25 9.25 9.25 9.25 9.25 9.25 9.25	371/2 et	38 ct.  .76 1.14 1.52 1.90 2.28 3.04 3.42 3.80 4.18 4.56 6.96 6.96 6.96 6.97 6.08 6.14 7.22 7.60 11.40 15.20 19.00 22.80 26.60	39 ct. .78 1.17 1.56 1.95 2.34 2.73 3.12 3.51 3.90 4.29 4.68 5.07 5.46 6.63 7.02 7.41 7.80 9.75 11.70 15.60 19.50 23.40 27.30 27.30	40 ct. .80 1.60 2.00 2.40 2.80 3.20 4.00 4.40 4.80 5.60 6.40 6.80 7.20 7.60 8.00 12.00 12.00 12.00 12.00 24.00 23.20 3.60 3.20 3.60 4.00 3.20 3.60 4.00 4.00 4.00 4.00 4.00 4.00 4.00 4.00 3.00 6.00 7.20 7.20 7.20 3.00

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Nos	41 ct.	42 ct.	43 ct.	44 ct.	45 ct.	46 ct.	47 ct.	48 ct.	49 ct.	50 ct.	51 ct.
2	.82	.84	.86	.88	.90	.92	.94	-96	.98	1.00	1.02
3 4	1.23 1.64	1.26 1.68	1.29 1.72	.88 1.32 1.76	1.35	1.38	1.41	1.44	1.47	1.50	1.53 2.04
4	1.64	1.68	1.72	1.76	1.80	1.84	1.88	1.92	1.96	2.00	2.04
6	2.05	2.10	2.15	2.20	2.25	2.30 2.76	2.35	2.40	2.45	2.50	2.55 3.06
6	2.46	2.52	2.58 3.01	2.64 3.08	2.70	2.76	2.80	2.88	2.94	3.00	3.06
7 8	2.87 3.28	2.94 3.36	3.44	3.52	3.15 3.60	3.22 3.68	3,29 3.76	3.36 3.84	3.43 3.92	3.50 4.00	4.08
9	3.69	3.78	3.87	3.96	4.05	4.14	4.23	4.32	4.41	4.50	4.59
10	4.10	4.20	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00	5.10
11	4 51	4.62	4.73	4.84	4.95	5.06	5.17	5.28	4.90 5.39	5.50	5.10 5.6I 6.12
12 13 14	4.92 5.33 5.74	5.04	5.16 5.59	5.28 5.72	5.40	5.72	5.64	5.76	5.88	6.00	6.12
13	5.33	5.46	5.59	5.72	5.85	5.98	6.11	6.24	6.37 6.86	6.50	6.63 7.14
14	5.74	5.88	6.02	6.16	6.30	6.44	6.58	6.72 7.20	7.35	7.00 7.50	7.65
15 16	6.15 6.56	6.30 6.72	6.45 6.88	6.60 7.04	6 75 7.20	6.90 7.36	7.05 7.52	7.68	7.84	8.00	8 16
17	6.97	7.14	7.31	7,48	7.65	7.82	7.99	8.16	8.33	8.50	8.16 8.67
18	7.38	7.56	7.74	7.92	8.10	8.28	8,46	8.64	8.82	9.00	9.18
19	7.38 7.79	7.56 7.98	8.17	7.92 8.30	8.55	8,28 8.74	8.93	9.12	9.31	9.60	9,69
20	8.20	8,40	8.60	8.80	9.00	9.20	9.40	9.60	9.80	10.00	10.20 12.75
18 19 20 25 30 40	10.25 12.30	10.50	10,75	11.00	11.25	11.50	11.75	12.00	12.25 14.70	12.50	12.75
30	12.30	12.60	12.90	13.20	13.50	13.80	14.10	14.40	14.70	15.00,	15.30
40	16.40 20.50	16.80	17.20 21.50	17.60	18.00	18.40 23.00	18.80 23.50	19.20 24.00	19.60 24.50	20.00	20.40 25.50
60	24.60	21.00 25.20	25.80	22.00 26.40	22.50 27.00	27.60	28.20	28.80	29.40	30.00	30.60
50 60 70	28:70	29.40	30.10	30.80	31.50	32.20	32.90	33.00	34.30	35.00	35.70
80 90	32.80	33.60	34.40	35.20	36.00	36.80	37.60	38.40	39.20	40.00	40.80
90	36.99	37.80	38.70	39.60	40 50	41.40	42.30	43.20	44.10	45.00	45.92
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200	41.00	42:00	43.00	44.00	45.00	46.00	47.00	48.00	49.00	50.00	51.00
Nos	52 ct.	53 ct.	54 ct.	55 ct.	56 ct.	57 ct.	58 et.	59 ct.	60 ct.	61 ct.	62 ct.
Nos	52 ct.	53 ct.	54 ct.	55 ct.	56 ct.	57 ct.	58 et.	59 ct.	60 ct.	61 ct.	62 ct.
Nos	52 ct.	53 ct.	54 ct.	55 ct.	56 ct.	57 ct.	58 et.	59 ct.	60 ct.	61 ct.	62 ct.
Nos	52 ct. 1.04 1.56	53 ct. 1.06 1.59	54 ct. 1.08 1.62	55 ct. 1.10 1.65	56 ct. 1.12 1.68	57 ct.	58 et. 1.16 1.74	59 ct. 1.18 1.77	60 ct. 1.20 1.80	61 ct. 1.22 1.83 2.44	62 ct.
Nos	52 ct. 1.04 1.56 2.08	53 ct. 1.06 1.59 2.12 2.65	1.08 1.62 2.16 2.70	55 ct. 1.10 1.63 2.20 2.75	56 ct. 1.12 1.68 2.24 2.80	57 ct. 1.14 1.71 2.28 2.85	1.16 1.74 2.32 2.90	59 ct. 1.18 1.77 2.36 2.95	1.20 1.80 2.40 3.00	1.22 1.83 2.44 3.05	1.24 1.86 2.48 3.10
Nos	1.04 1.56 2.08 2.60 3.12	1.06 1.59 2.12 2.65 3.18	1.08 1.62 2.16 2.70 3.24	1.10 1.63 2.20 2.75 3.30	56 ct. 1.12 1.68 2.24 2.80 3.36	57 ct. 1.14 1.71 2.28 2.85 3.42	1.16 1.74 2.32 2.90 3.48	59 ct. 1.18 1.77 2.36 2.95 3.54	1.20 1.80 2.40 3.00 3.60	1.22 1.83 2.44 3.05 3.66	1.24 1.86 2.48 3.10 3.72
Nos	52 ct. 1.04 1.56 2.08 2.60 3.12 3.64	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71	1.08 1.62 2.16 2.70 3.24 3.78	1.10 1.63 2.20 2.75 3.30 3.85	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92	57 ct. 1.14 1.71 2.28 2.85 3.42 3.99	1.16 1.74 2.32 2.90 3.48	59 ct. 1.18 1.77 2.36 2.95 3.54 4.13	1.20 1.80 2.40 3.00 3.60 4.20	1.22 1.83 2.44 3.05 3.66 4.27	1.24 1.86 2.48 3.10 3.72 4.34
Nos	1.04 1.56 2.08 2.60 3.12 3.64 4.16	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71	1.08 1.62 2.16 2.70 3.24 3.78 4.32	55 ct. 1.10 1.63 2.20 2.75 3.30 3.85 4.40	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48	57 ct. 1.14 1.71 2.28 2.85 3.42 3.99 4.56	1.16 1.74 2.32 2.90 3.48	59 ct. 1.18 1.77 2.36 2.95 3.54 4.13 4.72	1.20 1.80 2.40 3.00 3.60 4.20 4.80	1.22 1.83 2.44 3.05 3.66 4.27 4.88	1.24 1.86 2.48 3.10 3.72 4.34 4.96
Nos 2 3 4 5 6 7 8 9	52 ct. 1.04 1.56 2.08 2.60 3.12 3.64 4.16 4.68	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77	1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86	55 ct. 1.10 1.63 2.20 2.75 3.30 3.85 4.40 4.95	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.04	57 ct. 1.14 1.71 2.28 2.85 3.42 3.99 4.56	1.16 1.74 2.32 2.90 3.48	59 ct. 1.18 1.77 2.36 2.95 3.54 4.13 4.72 5.31	1.20 1.80 2.40 3.00 3.60 4.20 4.80 5.40	1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49	1.24 1.86 2.48 3.10 3.72 4.34 4.96 5.58
Nos 2 3 4 5 6 7 8 9	1.04 1.56 2.08 2.60 3.12 3.64 4.16 4.68 5.20	1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30	1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86 5.40	55 ct. 1.10 1.63 2.20 2.75 3.30 3.85 4.40 4.95	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.04 5.60	57 ct. 1.14 1.71 2.28 2.85 3.42 3.99 4.56 5.13 6.70	1.16 1.74 2.32 2.90 3.48	59 ct. 1.18 1.77 2.36 2.95 3.54 4.73 4.72 5.31 5.90	1.20 1.80 2.40 3.00 3.60 4.20 4.80 5.40 6.00	1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10	1.24 1.86 2.48 3.10 3.72 4.34 4.96 5.58 6.20
Nos 2 3 4 5 6 7 8 9	52 ct. 1.04 1.56 2.08 2.60 3.12 3.64 4.16 4.68 5.20 5.72	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83	1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86	55 ct. 1.10 1.63 2.20 2.75 3.30 3.85 4.40 4.95 5.50 6.05 6.60	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.64 5.64 6.16 6.72	57 ct. 1.14 1.71 2.28 2.85 3.42 3.99 4.56 5.13 6.27 6.84	58 et. 1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.33 6.96	59 ct. 1.18 1.77 2.36 2.95 3.54 4.13 4.72 5.31	1.20 1.80 2.40 3.00 3.60 4.20 4.80 5.40 6.60	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32	1.24 1.86 2.48 3.10 3.72 4.34 4.96 5.58 6.20 6.82 7.44
Nos 2 3 4 5 6 7 8 9	52 ct. 1.04 1.56 2.08 2.60 3.12 3.64 4.16 4.68 5.20 5.72 6.24 6.76	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83 6.36 6.89	54 ct. 1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86 5.40 5.94 6.48 7.02	55 ct. 1.10 1.63 2.20 2.75 3.30 3.85 4.40 4.95 5.50 6.05 6.60 7.15	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.60 6.16 6.72 7.28	57 ct. 1.14 1.71 2.28 2.83 3.42 3.42 3.99 4.56 5.13 6.70 6.84 7.41	1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.38 6.96 7.54	59 ct. 1.18 1.77 2.36 2.95 3.54 4.72 5.31 5.90 6.49 7.08 7.67	1.20 1.80 2.40 3.00 4.20 4.80 5.40 6.60 6.60 7.20 7.80	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32 7.93	1.24 1.86 2.48 3.10 3.72 4.34 4.96 5.58 6.20 6.82 7.44 8.06
Nos 2 3 4 5 6 7 8 9	52 ct. 1.04 1.56 2.08 2.60 3.12 3.64 4.16 4.68 5.20 5.72 6.24 6.76	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83 6.36 6.89	54 ct. 1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86 5.40 5.94 6.48 7.02	55 ct. 1.10 1.63 2.20 2.75 3.30 3.85 4.40 4.95 5.50 6.05 6.60 7.15	56 ct. 1.12 1.68 2.24 2.80 3.362 4.48 5.60 6.16 6.72 7.28 7.84	57 ct. 1.14 1.71 2.28 2.83 3.42 3.42 3.99 4.56 5.13 6.70 6.84 7.41	1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.38 6.96 7.54	59 ct. 1.18 1.77 2.36 2.95 3.54 4.73 4.72 5.31 5.90 6.49 7.68 7.67 8.26	1.20 1.80 2.40 3.00 3.60 4.20 4.80 5.40 6.00 6.60 7.20 7.80 8.40	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32 7.93 8.54	1.24 1.86 2.48 3.10 3.72 4.34 4.96 6.58 6.20 6.82 7.44 8.06 8.68
Nos 2 3 4 5 6 7 8 9	52 ct. 1.04 1.56 2.08 2.60 3.12 3.64 4.16 4.68 5.20 5.72 6.24 6.76 7.28	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83 6.36 6.89 7.42 7.95	1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86 5.40 5.94 6.48 7.02 7.06 8.10	55 ct. 1.10 1.63 2.20 2.75 3.30 3.85 4.40 4.95 5.50 6.60 7.15 7.70 8.25	56 ct. 1.12 1.68 2.24 2.80 3.392 4.48 5.60 6.16 6.72 7.28 7.84 8.40	57 ct. 1.14 1.71 2.28 2.83 3.42 3.99 4.56 5.13 6.70 6.27 6.84 7.41 7.98 8.55	58 et. 1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.38 6.96 7.54 8.12	59 ct. 1.18 1.77 2.36 2.95 3.54 4.73 4.72 5.31 5.90 6.49 7.08 7.67 8.26 8.85	60 ct. 1.20 1.80 2.40 3.60 4.20 4.80 6.60 7.20 7.80 8.40 9.00	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32 7.93 8.54 9.15	1.24 1.86 2.48 3.10 3.72 4.34 4.96 5.58 6.20 7.44 8.06 8.68 9.30
Nos 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1.04 1.56 2.06 3.12 3.64 4.16 4.16 4.65 5.20 5.72 6.24 6.76 7.28 7.80 8.32	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83 6.36 6.89 7.42 7.95 8.48	1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86 5.40 6.48 7.02 7.56 8.10 8.64	55 ct. 1.10 1.63 2.20 2.75 3.30 3.85 4.40 4.95 5.50 6.60 7.15 7.70 8.25 8.80	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.64 5.60 6.16 6.72 7.28 7.84 8.40 8.96	57 ct. 1.14 1.71 2.28 3.42 3.99 4.56 5.13 6.70 6.27 6.84 7.41 7.98 8.55 9.12	58 et. 1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.38 6.96 7.54 8.12	59 ct. 1.18 1.77 2.36 2.95 3.54 4.13 4.72 5.31 5.90 6.49 7.08 7.67 8.26 8.85 9.44	60 ct. 1.20 1.80 2.40 3.00 3.60 4.20 4.80 5.40 6.00 6.60 7.20 7.80 8.40 9.00 9.60	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32 7.93 8.54 9.15 9.76	1.24 1.86 2.48 3.10 3.72 4.34 4.96 5.58 6.20 6.82 6.82 6.82 6.83 9.30 9.92
Nos 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	52 ct. 1.04 1.56 2.60 3.12 3.64 4.16 4.68 5.20 6.76 7.28 7.80 8.32 8.84	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83 6.36 6.89 7.42 7.95 8.48 9.01	1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86 5.40 5.94 6.48 7.02 7.56 8.10 8.64 9.18	55 ct. 1.10 1.63 2.20 2.75 3.30 3.85 4.40 4.95 5.50 6.60 7.15 7.70 8.25 8.80	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.60 6.76 7.28 7.84 8.40 8.96 9.52	57 ct. 1.14 1.71 2.28 2.85 3.42 3.94 5.13 6.70 6.27 6.84 7.41 7.98 8.55 9.12 9.69	58 et. 1.16 1.74 2.32 2.90 3.48 4.06 5.22 5.80 6.38 7.54 8.12 8.70 9.28 9.86	59 ct. 1.18 1.77 2.36 2.95 3.54 4.72 5.31 5.90 6.49 7.08 7.67 8.26 8.85 9.44 10.03	60 ct. 1.20 1.80 2.40 3.00 3.60 4.20 6.00 6.60 7.20 7.80 8.40 9.00 9.60 10.20	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32 7.93 8.54 9.15 9.76 10.37	62 ct. 1.24 1.86 2.48 3.10 3.72 4.34 4.96 5.58 6.20 6.82 7.44 8.06 8.68 9.30 9.92 10.54
Nos 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	52 ct. 1.04 1.56 2.08 2.60 3.12 3.64 4.16 4.68 5.20 5.72 6.24 6.76 7.28 7.80 8.32 8.84 9.36	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83 6.36 6.89 7.42 7.95 8.48 9.01 9.54	1.08 1.62 2.16 2.70 3.24 3.78 4.86 5.40 5.94 6.48 7.02 7.56 8.10 8.64 9.18 9.72	55 ct. 1.10 1.63 2.20 2.75 3.30 4.40 4.95 5.50 6.60 7.15 7.70 8.25 8.80 9.35 9.90 10.45	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.04 5.60 6.72 7.28 7.28 7.840 8.96 9.52 10.084	57 ct. 1.14 1.71 2.28 2.83 3.42 3.99 4.56 5.13 6.27 6.84 7.41 7.98 8.55 9.12 9.69 10.26 10.83	58 et. 1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.38 6.96 7.54 8.12 8.70 9.28 9.86 10.44	59 ct. 1.18 1.77 2.36 2.95 3.54 4.13 4.72 5.31 5.90 6.49 7.08 7.67 8.26 8.85 9.44	60 ct. 1.20 1.80 2.40 3.00 3.60 4.20 4.80 5.40 6.00 6.60 7.20 7.80 8.40 9.00 9.60	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32 7.93 8.54 9.15 9.76	1.24 1.86 2.48 3.10 3.72 4.34 4.96 5.58 6.20 6.82 6.82 6.82 6.83 9.30 9.92
Nos 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	52 ct. 1.04 1.56 2.08 2.60 3.12 3.64 4.16 4.68 5.72 6.24 6.76 7.28 7.80 8.32 8.84 9.38 9.38 9.38	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83 6.36 6.89 7.42 7.95 8.48 9.01 9.54 10.06	54 ct. 1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86 5.40 5.94 6.48 7.02 7.56 8.10 8.64 9.18 9.72 10.26 10.26	55 ct. 1.10 1.63 2.20 2.75 3.30 4.40 4.95 5.50 6.60 7.15 7.70 8.25 8.80 9.35 9.90 10.45	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.04 5.60 6.16 6.72 7.23 7.84 8.40 8.95 9.52 10.08 10.08 11.20	57 ct. 1.14 1.71 2.28 2.83 3.42 3.99 4.56 5.13 6.27 6.84 7.41 7.98 8.55 9.12 9.69 10.26 10.83	58 et. 1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.38 6.96 7.54 8.12 8.70 9.28 9.86 10.44 11.02	59 ct. 1.18 1.77 2.36 2.95 4.13 4.72 5.31 5.90 6.49 7.08 7.08 7.08 7.08 7.08 10.62 11.21 11.80	60 ct. 1.20 1.80 2.40 3.00 4.20 4.80 6.60 7.20 7.80 8.40 9.00 10.20 10.80 11.40 12.00	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32 7.93 8.54 9.15 9.76 10.37 10.98 11.59 12.20	62 ct. 1.24 1.86 2.48 3.10 3.72 4.34 4.96 5.58 6.20 7.44 8.06 8.68 9.30 9.92 10.54 11.16 11.78
Nos 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	52 ct. 1.04 1.56 2.08 2.60 3.12 3.64 4.16 4.68 5.20 5.72 6.74 6.76 7.28 7.80 8.32 9.36 9.88 10.40 13.00	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83 6.36 6.89 7.42 7.95 8.48 9.01 10.60 10.07 10.60 13.25	54 ct. 1.08 1.62 2.16 2.70 3.24 4.32 4.36 5.40 5.94 6.48 7.02 7.56 8.10 8.64 9.18 9.72 10.26 10.80 13.50	55 ct. 1.10 1.63 2.20 2.75 3.30 3.85 4.40 4.95 5.50 6.05 6.05 7.15 7.70 8.25 8.80 9.35 9.90 10.45 11.00 13.75	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.60 6.16 6.72 7.28 8.40 8.96 9.52 10.08 10.64 11.20 14.00	57 ct. 1.14 1.71 2.28 3.42 3.99 4.56 5.13 6.70 6.27 6.84 7.41 7.98 8.55 9.12 9.69 10.26 10.83 11.40 14.25	58 et. 1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.38 6.96 7.54 8.12 8.70 9.28 9.86 10.44 11.02 11.60	59 ct. 1.18 1.77 2.36 2.95 3.54 4.73 4.72 5.31 5.90 6.49 7.08 7.67 8.26 8.85 9.44 10.03 10.62 11.21 11.80 14.75	60 ct. 1.20 1.80 2.40 3.00 3.60 4.20 4.80 6.60 6.60 7.20 7.80 8.40 9.00 9.60 10.20 10.80 11.40 12.00 15.00	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32 7.93 8.54 9.16 9.76 10.37 10.98 11.59 12.20 15.26	62 ct.  1.24 1.86 2.48 3.10 3.72 4.34 4.96 6.20 6.82 7.44 8.06 8.68 9.30 9.92 10.54 11.16 11.78 12.40 15.50
Nos  2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25 30	52 ct. 1.04 1.56 2.60 3.12 3.64 4.16 4.68 5.20 5.72 6.24 6.76 7.28 7.80 9.88 10.40 13.00 15.60	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83 6.36 6.89 7.42 7.95 8.48 9.01 9.54 10.07 10.60 13.25 15.99	54 ct. 1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86 5.40 5.94 6.48 7.02 7.56 8.10 8.64 9.18 9.72 10.26 10.80 13.50 16.20	55 ct. 1.10 1.65 2.20 2.75 3.30 3.85 4.40 5.50 6.05 6.05 6.05 7.15 7.70 8.25 8.80 9.35 9.90 10.45 11.00 13.75	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.60 6.16 6.72 7.28 7.84 8.40 9.52 10.08 11.20 14.00 16.80	57 ct. 1.14 1.71 2.28 2.85 3.42 3.99 4.56 5.13 6.70 6.84 7.41 7.98 8.55 9.12 9.69 10.26 10.83 11.40 14.25 17.10	58 et.  1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.38 6.96 7.54 8.12 8.70 9.28 9.86 10.44 11.02 11.60 14_50 17.40	59 ct.  1.18 1.77 2.36 2.95 3.54 4.13 4.73 5.90 6.49 7.08 7.67 8.26 8.85 9.44 10.03 10.62 11.21 11.80 14.75	60 ct. 1.20 1.80 2.40 3.00 4.20 4.80 6.00 6.60 7.20 7.80 8.40 9.00 9.60 10.20 10.80 11.40 12.00 15.00 18.00	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 6.10 6.71 7.32 7.93 8.54 9.15 9.76 10.37 10.98 11.59 12.20 15.25 18.30	62 ct.  1.24 1.86 2.48 3.10 3.72 4.34 4.96 6.58 6.20 6.82 7.44 8.06 8.68 9.30 9.92 10.54 11.18 11.78 12.40 15.50
Nos  2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25 30	52 ct. 1.04 1.56 2.60 3.12 3.64 4.168 4.68 5.20 5.72 6.24 6.76 7.28 7.80 8.32 8.84 9.36 9.38 10.40 13.60 15.60 20.80	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83 6.36 6.89 7.42 7.95 8.48 9.01 9.54 10.07 10.60 13.25 15.90 21.10	54 ct. 1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86 5.40 5.94 6.48 7.02 7.56 8.10 8.64 9.18 9.72 10.26 10.80 13.50 16.20 21.60 21.60	55 ct. 1.10 1.63 2.20 2.75 3.30 3.85 4.40 4.95 5.50 6.60 7.15 8.25 8.80 9.35 9.90 10.45 11.00 13.75 16.50 22.00	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.04 5.60 6.72 7.28 8.40 8.96 9.52 10.08 10.08 11.20 14.00 16.80 22.40	57 ct. 1.14 1.71 2.28 3.42 3.99 4.56 5.13 6.27 6.84 7.41 7.98 8.55 9.12 9.69 10.26 10.83 11.40 14.25 17.10 17.28	58 et.  1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.38 6.96 7.54 8.12 8.70 9.28 9.86 10.44 11.02 11.60 14_50 17.40	59 ct.  1.18 1.77 2.36 2.95 3.54 4.13 4.73 5.90 6.49 7.08 7.67 8.26 8.85 9.44 10.03 10.62 11.21 11.80 14.75	60 ct. 1.20 1.80 2.40 3.00 3.60 4.80 5.40 6.00 7.20 7.80 9.00 9.00 10.80 11.40 12.00 15.00 18.00 24.00	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 7.32 7.93 8.54 9.15 9.76 10.37 10.98 11.59 12.20 15.25 18.30 24.42	62 ct.  1.24 1.86 2.48 3.10 3.72 4.34 4.96 6.82 7.44 8.06 8.68 9.30 9.92 10.54 11.16 11.78 12.40 18.60 24.80
Nos  2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25 30	52 ct. 1.04 1.56 2.08 3.12 3.64 4.16 4.68 5.70 5.72 6.24 6.76 7.28 8.32 8.32 8.93 9.88 10.40 13.00 15.60 20.80 20.	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83 6.36 6.89 7.42 7.95 8.48 9.01 10.07 10.60 13.25 15.90 21.10 26.50 26.50	54 ct. 1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86 5.40 5.94 6.48 7.02 7.56 8.10 8.64 9.18 9.72 10.26 10.80 13.50 16.20 21.60 27.00	55 ct. 1.10 1.63 2.20 2.75 3.30 3.84 4.95 5.50 6.05 7.75 7.70 8.25 8.80 9.35 9.90 10.45 11.00 13.75 16.50 22.00 27.50	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.60 6.16 6.72 7.23 7.84 8.40 8.96 9.52 10.08 10.64 11.20 14.00 16.80 22.40 28.00 28	57 ct. 1.14 1.71 2.28 3.42 3.99 4.56 5.13 6.27 6.84 7.41 7.98 8.55 9.12 9.69 10.26 10.83 11.40 14.25 17.10 22.80 28.50	58 et.  1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.38 6.96 7.54 8.12 8.70 9.28 9.86 10.44 11.02 11.60 17.40 23.20 29.00	59 ct.  1.18 1.77 2.36 2.95 3.54 4.73 4.72 5.31 4.72 5.31 4.72 6.49 7.08 8.85 7.67 8.26 8.85 9.44 10.03 10.62 11.21 11.80 14.75 17.70 23.60 29.50	60 ct. 1.20 1.80 2.40 3.00 3.60 6.420 4.80 6.40 7.20 7.80 8.40 9.00 10.20 10.80 11.40 12.00 18.00 24.00 30.00	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32 7.93 8.54 9.15 9.76 10.37 10.98 11.59 12.20 15.25 18.30 24.42 30.55 18.30 24.42 30.55 18.30 24.42 30.55 18.30 24.42 30.55 18.30 24.42 30.55 30	62 ct.  1.24 1.86 2.48 3.10 3.72 4.34 4.96 6.20 6.82 7.44 8.06 8.68 9.90 9.92 10.54 11.16 11.78 12.40 15.50 18.60 24.80 31.00
Nos  2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25 30	52 ct. 1.04 1.56 2.60 3.12 3.64 4.16 4.63 5.20 6.76 6.76 6.76 6.78 9.38 8.32 8.32 8.32 10.40 13.00 15.60 20.80 20.	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 6.36 6.89 7.42 7.95 8.48 9.01 9.54 10.07 10.60 13.25 15.90 21.10 26.50 3.11 3.71 3.71 4.24 4.77 5.30 6.39 6.39 6.39 9.01 9.54 10.00	54 ct. 1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86 5.40 5.94 6.48 7.02 7.56 8.10 8.64 9.72 10.26 10.80 13.50 16.20 21.60 27.00 32.40	55 ct. 1.10 1.63 2.20 2.75 3.30 3.85 5.50 6.05 6.05 7.15 8.25 8.80 9.35 9.90 10.45 11.00 13.75 16.50 22.00 27.50 33.80	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.60 6.16 6.72 7.23 7.84 8.40 8.96 9.52 10.08 11.00 11.00 12.40 22.40 23.60 23.60 24.40 25.60 26.60 27	57 ct. 1.14 1.71 2.28 3.42 3.99 4.58 5.13 6.70 6.27 6.84 7.41 7.98 8.55 9.12 9.69 10.26 10.83 11.40 14.25 17.10 22.80 28.50 34.20 34	58 et.  1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.33 6.96 7.54 8.12 8.70 9.28 9.86 10.44 11.02 211.60 14.50 17.40 23.20 29.00 34.80	59 ct.  1.18 1.77 2.36 2.95 3.54 4.12 5.31 5.90 6.49 7.08 7.67 8.26 8.85 9.44 10.03 10.62 11.21 11.80 14.75 17.70 23.60 29.50 35.40	60 ct. 1.20 1.80 2.40 3.60 4.20 6.00 6.60 7.20 7.20 7.20 10.80 11.40 12.00 15.00 18.00 24.00 30.00 36.00	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32 7.93 8.54 9.15 9.76 10.37 10.98 11.59 12.20 15.25 18.30 24.42 30.50 36.60	62 ct.  1.24 1.86 2.48 3.10 3.72 4.34 4.96 6.52 6.20 6.82 7.44 8.06 8.68 9.30 9.92 10.54 11.16 11.78 12.40 15.50 18.60 24.80 31.00 37.20
Nos 2 3 4 4 5 6 6 7 8 8 9 9 10 11 12 13 13 14 15 16 17 18 8 19 20 5 5 0 40 60 7 9 60	52 ct. 1.04 1.56 2.08 3.12 3.64 4.16 4.68 5.70 5.72 6.24 6.76 7.28 8.32 8.32 8.93 9.88 10.40 13.00 15.60 20.80 20.	53 ct. 1.06 1.59 2.12 2.65 3.18 3.71 4.24 4.77 5.30 5.83 6.36 6.89 7.42 7.95 8.48 9.01 10.07 10.60 13.25 15.90 21.10 26.50 26.50	54 ct. 1.08 1.62 2.16 2.70 3.24 3.78 4.32 4.86 5.40 5.94 6.48 7.02 7.56 8.10 8.64 9.18 9.72 10.26 10.80 13.50 16.20 21.60 27.00	55 ct. 1.10 1.63 2.20 2.75 3.30 3.84 4.95 5.50 6.05 7.75 7.70 8.25 8.80 9.35 9.90 10.45 11.00 13.75 16.50 22.00 27.50	56 ct. 1.12 1.68 2.24 2.80 3.36 3.92 4.48 5.60 6.16 6.72 7.23 7.84 8.40 8.96 9.52 10.08 10.64 11.20 14.00 16.80 22.40 28.00 28	57 ct. 1.14 1.71 2.28 3.32 3.42 3.99 4.56 5.70 6.27 6.84 7.41 7.98 8.55 9.12 9.69 10.26 10.83 11.40 22.80 28.50 34.20 39.90 39	58 et.  1.16 1.74 2.32 2.90 3.48 4.06 4.64 5.22 5.80 6.38 6.96 7.54 8.12 8.70 9.28 9.86 10.44 11.02 11.60 17.40 23.20 29.00	59 ct.  1.18 1.77 2.36 2.95 3.54 4.12 5.31 5.90 6.49 7.08 7.67 8.26 8.85 9.44 10.03 10.62 11.21 11.80 14.75 17.70 23.60 29.50 35.40	60 ct. 1.20 1.80 2.40 3.00 3.60 6.420 4.80 6.40 7.20 7.80 8.40 9.00 10.20 10.80 11.40 12.00 18.00 24.00 30.00	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32 7.93 8.54 9.15 9.76 10.37 10.98 11.59 12.20 15.25 18.30 24.42 30.55 18.30 24.42 30.55 18.30 24.42 30.55 18.30 24.42 30.55 18.30 24.42 30.55 30	62 ct.  1.24 1.86 2.48 3.10 3.72 4.34 4.96 6.20 6.82 7.44 8.06 8.68 9.90 9.92 10.54 11.16 11.78 12.40 15.50 18.60 24.80 31.00
Nos 2 3 4 5 6 6 7 8 8 9 9 10 11 12 12 13 11 15 16 17 18 19 20 25 30 60 60 60 60 60 60 60 60 60 60 60 60 60	52 ct. 1.04 1.56 2.08 3.12 3.64 4.16 4.68 5.20 6.24 6.76 6.72 6.24 9.36 9.38 9.38 9.38 9.38 9.38 9.38 9.30	53 ct. 1.066 1.59 2.12 2.65 3.18 4.24 4.77 6.36 6.37 7.95 8.48 9.01 10.07 11.59 10.07 11.59 10.07 11.59 10.07 11.59 10.07 11.59 10.07 11.59 10.07 11.59 10.07 10.	54 ct. 1.08 1.62 2.16 2.70 3.24 4.32 4.86 5.40 5.94 4.86 6.48 7.02 7.56 8.10 8.64 9.12 10.26 27.00 21.60 27.00 43.20 43.24 44.66 44.66 44.66 45.24 45.	55 ct. 1.10 1.63 2.20 2.75 3.39 4.49 4.95 6.60 6.05 6.60 7.15 7.70 8.825 8.80 9.35 9.3	56 ct. 1.12 1.68 2.24 2.80 3.36 5.04 5.60 6.16 6.72 7.23 7.84 8.96 10.68 11.20 11.20 11.20 11.20 33.60 33.90 44.80 56.90	57 ct.  1.14 1.71 2.28 2.85 3.42 3.99 4.56 6.13 6.70 6.84 7.41 7.98 8.55 9.10 26 10.83 11.40 14.25 17.10 22.80 28.50 34.20 39.90 45.60	58 et.  1.16 1.74 4.06 4.64 4.06 4.65 6.38 6.38 6.7.54 8.12 2.90 9.28 8.70 9.28 8.70 9.28 4.64 4.06 4.64 6.40 6.63 6.63 6.63 6.75 6.75 6.75 6.75 6.75 6.75 6.75 6.75	59 ct.  1.18 1.77 2.36 2.95 3.54 4.73 4.72 5.31 4.72 5.31 4.72 6.49 7.08 8.85 7.67 8.26 8.85 9.44 10.03 10.62 11.21 11.80 14.75 17.70 23.60 29.50	60 ct. 1.20 1.80 2.40 3.60 4.20 4.80 6.60 6.60 7.20 7.20 7.20 7.20 10.80 10.20 10.80 10.20 11.40 12.00 18.00 24.00 36.00 48.00 36.00 48.00 48.00 54.00	61 ct. 1.22 1.83 2.44 3.05 3.66 4.27 4.88 5.49 6.10 6.71 7.32 7.93 8.54 9.15 9.76 10.98 11.59 12.20 15.25 18.30 24.42 30.50 36.60 42.70 36.60 42.70 43.80 43	62 ct. 1.24 1.86 2.43 3.10 3.72 4.34 4.96 6.58 6.20 7.44 8.06 8.68 9.30 9.92 10.54 11.16 11.78 12.40 15.50 18.60 24.80 31.00 37.20 43.40

### READY RECKONER.

If the Number required is not found in the Tables, add two Numbers together; for instance, if 35 bushels are required, add the prices opposite 30 and 5 together; and so for 365 bushels—treble the value of 100, and add 60 and 5 together.

Nos	62½ct.	63 ct.	64ct.	65 ct.	66 ct.	66%ct.	67 ct,	68 ct.	69 ct.	70 ct.	71 et.
2	1.25	1.26	1.28	1.30	1.32	1.331/3	1.34	1.38	1.38	1.40	1.42
2 3 4	1.871/2	1.89	1.92	1.95	1.98	2.00	2.01 2.68	2.04 2.72	2.07 2.78	2.10 2.80	2.13 2.84
.5	2.50 3.121/ <sub>2</sub>	2.52 3.15	2.56 3.20	2.60 3.25	2.64 3.30	2.66 <sup>2</sup> / <sub>3</sub> 3.33 <sup>1</sup> / <sub>8</sub>	3.35	3.40	3.45	3.50	3.55
ß	3.75	3.78	3.84	3.90	3.96	4.00	4.02	4.08	4.14	4.20	4.26
7	4.371/8	4.41	4.48	4.55	4.62	4.66 <sup>2</sup> / <sub>3</sub> 5.33 / <sub>8</sub>	4.69	4.78	4.83	4.90	4.97
8	5.00	5.04 5.67	5.12	5.20	5.28 5.94	6.00	6.03	6.12	5.52 6.21	5.60 6.30	5 68 6.39
10	5.62½ 6.25	6.30	5.76 6.40	5.85 6.50	-6.60		6.70	6.80	6.90	7.00	7.10
11	6.871/2	6.93	7.04	7.15	7.26	6.66 <sup>2</sup> / <sub>3</sub> 7.33 <sup>1</sup> / <sub>3</sub>	7.37	7.48	7.59	7.70	7.81
12	7.50	7.56	7.68	7.80	7.92	8.00	8.04	8.16	8.28	8.40	8.52
13	8.121/2	8.19		8.45	8.58 9.24	8.66 <sup>2</sup> / <sub>3</sub> 9.33 <sup>1</sup> / <sub>8</sub>	8.71	8.84	8.97	9.10 9.80	9.23 9.94
14 15	8.75 9.37½	8.80 9.45	9.60	9.10 9.75	9.90	110.00	9.38	9.52 10.20	9. 66 10.35	10.50	10.65
16	10.00	10.08	10.24	10.40	10.56	10.66 <sup>2</sup> / <sub>3</sub> 11.33 <sup>1</sup> / <sub>3</sub>	10.72	10.88	11.04	11.20	11.36
17	10.62½ 11.25	10.71	10.88	11.05	11.22	11.331/3	11.39	11.56	11.73	11.90	12.07
18	11.25	11.34	11.52	11.70	11.88	12.00	12.06	12.24	12.42	12.60 13.30	12.78
19 20	$\frac{11.87\frac{1}{2}}{12.50}$	12.60	12.16 12.80	12.35 13.00	13.04	12.662/ <sub>3</sub> 13.33/ <sub>3</sub>	12.73 13.40	12.92 13.60	13.11 13.80	14.00	13.49
25	15.621/2	15.75	16.00	16.25	16.50	16.662/3	16.75	17.00	17.25	17.50	17.78
30	18.75	18.90	19.20	19.50	19.80	20.00	20.10	20.40	20.70	21.00	21.30
40	25.00 31.25	25.20	25.60 32.00	26.00	26.40	26.66 <sup>2</sup> / <sub>3</sub> 33.33 <sup>1</sup> / <sub>3</sub>	26.80 33.50	27.20 34.00	27.60	28.00 35.00	28.40
50 60	37.50	37.80	38.40	32.50 39.00	1 39.60	40.00	40.20	40.80	34.50	42.00	42.00
70	43.75	44.10	44.80	45.50	46.20	46.662/2	46.90	47.60	48.30	49.00	49.70
80	43.75 50.00	50.40	51.20	52.00	52.80	46.66 <sup>2</sup> / <sub>3</sub> 53.33 / <sub>3</sub>	53.00	54.40	55.20	56.00	56.80
100	51.25 62.50		57.60 64.00	58.50 65.00	59.40	60.00	60.30	61.20	62.10	63.00	63.90 71.00
100											
Option 17	-		,	00100	00100					-	
Nos		73 ct.		75 ct.	78 ct.	77 ct.	78 ct.	79 ct.	80 ct.	81 et.	82 ct_
	72 ct.	73 ct.	74 ct.	75 ct.	78 ct.	77 ct.	78 ct.	79 ct.	80 ct.	1.62	82 ct. 1.64
	72 ct.	73 et. 1.46 2.19	74 ct. 1.48 2.22	75 ct. 1.50 2.25	78 ct. 1.52 2.28	77 ct. 1.54 2.31	78 ct. 1.56 2.34	79 ct. 1.58 2.37	80 ct. 1.60 2.40	1.62 2.43	82 ct 1.64 2.46
2 3 4	72 ct. 1.44 2.16 2.88	73 et. 1.46 2.19 2.92	74 ct. 1.48 2.22 2.96	75 ct. 1.50 2.25 3.00	78 ct. 1.52 2.28 3.04	77 ct. 1.54 2.31 3.08	78 ct. 1.56 2.34 3.12	79 ct. 1.58 2.37 3.16	80 ct. 1.60 2.40 3,20	1.62 2.43 8.24	82 ct. 1.64
2 3 4 5	72 ct. 1.44 2.16 2.88 3.60 4.32	73 et. 1.46 2.19 2.92 3.65 4.38	74 ct. 1.48 2.22 2.96 3.70 4.44	75 ct. 1.50 2.25 3.00 3.75 4.50	78 ct. 1.52 2.28 3.04 3.80 4.56	77 ct. 1.54 2.31 3.08 3.85 4.62	78 ct. 1.56 2.34 3.12 3.90 4.68	79 ct. 1.58 2.37 3.16 3.95 4.74	80 ct. 1.60 2.40 3.20 4.00 4.80	1.62 2.43 8.24 4.05 4.88	82 ct. 1.64 2.46 3.28 4.10 4.92
2 3 4 5 6 7	72 ct. 1.44 2.16 2.88 3.60 4.32 5.04	73 et. 1.46 2.19 2.92 3.65 4.38 5.11	74 ct. 1.48 2.22 2.96 3.70 4.44 5.18	75 ct. 1.50 2.25 3.00 3.75 4.50 5.25	78 ct. 1.52 2.28 3.04 3.80 4.56 5.32	77 ct.  1.54 2.31 3.08 3.85 4.62 5.39	78 ct. 1.56 2.34 3.12 3.90 4.68 5.46	79 ct. 1.58 2.37 3.16 3.95 4.74 5.53	80 ct. 1.60 2.40 3.20 4.00 4.80 5.60	1.62 2.43 8.24 4.05 4.88 5.87	1.64 2.46 3.28 4.10 4.92 5.74
2 3 4 5 6 7 8	72 ct. 1.44 2.16 2.88 3.60 4.32 5.04 5.76	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 5.84	74 ct. 1.48 2.22 2.96 3.70 4.44 5.18 5.92	75 ct. 1.50 2.25 3.00 3.75 4.50 5.25 6.00	78 ct. 1.52 2.28 3.04 3.80 4.56 5.32 6.08	77 ct.  1.54 2.31 3.08 3.85 4.62 5.39 6.18	78 ct. 1.56 2.34 3.12 3.90 4.68 5.46 6.24	79 ct. 1.58 2.37 3.16 3.95 4.74 5.53 6.32	80 ct. 1.60 2.40 3.20 4.00 4.80 5.60 6.40	1.62 2.43 3.24 4.05 4.88 5.67 6.48	1.64 2.46 3.28 4.10 4.02 5.74 6.56
2 3 4 5 6 7 8	72 ct. 1.44 2.16 2.88 3.60 4.32 5.04 5.76 6.48	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 5.84 6.57	74 ct. 1.48 2.22 2.96 3.70 4.44 5.18 5.92 6.66	75 ct. 1.50 2.25 3.00 3.75 4.50 5.25 6.00 6.75	78 ct. 1.52 2.28 3.04 3.80 4.56 5.32 6.08 6.84	77 ct. 1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93	78 ct. 1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02	79 ct. 1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11	80 ct. 1.60 2.40 3.20 4.00 4.80 5.60 6.40 7.20	1.62 2.43 3.24 4.05 4.88 5.67 6.48 7.29	82 ct. 1.64 2.46 3.28 4.10 4.92 5.74 6.56 7.38
2 3 4 5 6 7 8 9 10	72 ct. 1.44 2.16 2.88 3.60 4.32 5.04 5.76 6.48 7.20 7.92	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 5.84 6.57 7.30 8.03	74 ct. 1.48 2.22 2.96 3.70 4.44 5.18 5.92 6.66 7.40 8.14	75 ct. 1.50 2.25 3.00 3.75 4.50 5.25 6.00 6.75	78 ct. 1.52 2.28 3.04 3.80 4.56 5.32 6.08 6.84 7.60 8.30	77 ct.  1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 8,47	78 ct. 1.56 2.34 3.12 3.90 4.68 5.46 6.24	79 ct. 1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 8.69	80 ct. 1.60 2.40 3.20 4.00 4.80 5.60 6.40 7.20 8.00 8.80	1.62 2.43 8.24 4.05 4.88 5.87 6.48 7.29 8.10 8.91	82 ct 1.64 2.46 3.28 4.10 4.92 5.74 6.56 7.38 8.20 9.02
2 3 4 5 6 7 8 9 10 11 12	72 ct. 1.44 2.16 2.88 3.60 4.32 5.04 5.76 6.48 7.20 7.92 8.64	73 ct.  1.46 2.19 2.92 3.65 4.38 5.11 5.84 6.57 7.30 8.03 8.76	74 ct. 1.48 2.22 2.98 3.70 4.44 5.18 5.92 6.66 7.40 8.14 8.88	75 ct. 1.50 2.25 3.00 3.75 4.50 5.25 6.00 6.75 7.50 8.25 9.00	78 ct. 1.52 2.28 3.04 3.80 4.56 5.32 6.08 6.760 8.30 9.12	77 ct. 1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 8.47 9.24	78 et. 1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02 7.80 8.58 9.36	79 ct. 1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 8.69 9.48	80 ct. 1.60 2.40 3.20 4.00 4.80 5.60 6.40 7.20 8.80 9.60	1.62 2.43 8.24 4.05 4.88 5.67 6.48 7.29 8.10 8.91 9.72	82 ct 1.64 2.46 3.28 4.10 4.92 5.74 6.56 7.38 8.20 9.02 9.84
2 3 4 5 6 7 8 9 10 11 12 13	72 ct. 1.44 2.16 2.88 3.60 4.32 5.04 6.76 6.48 7.20 7.92 8.64 9.36	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 5.84 6.57 7.30 8.03 8.76 9.49	74 ct. 1.48 2.22 2.98 3.70 4.44 5.18 5.92 6.66 7.40 8.14 8.88 9.62	75 ct. 1.50 2.25 3.00 3.75 4.50 5.25 6.00 6.75 7.50 8.25 9.00 9.75	78 ct. 1.52 2.28 3.04 3.80 4.56 5.32 6.08 6.84 7.60 8.30 9.12 9.88	77 ct. 1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 8.47 9.24 10.01	78 ct. 1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02 7.80 8.58 9.36 10.14	79 ct. 1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 8.69 9.48 10.27	80 ct. 1.60 2.40 3.20 4.00 4.80 5.60 6.40 7.20 8.80 9.60	1.62 2.43 3.24 4.05 4.88 5.67 6.48 7.29 8.10 8.91 9.72 10.53	82 ct 1.64 2.46 3.28 4.10 4.92 5.74 6.56 7.38 8.20 9.02 9.84 10.66
2 3 4 5 6 7 8 9 10 11 12 13 14	72 ct. 1.44 2.16 2.88 3.60 4.32 5.04 6.76 6.48 7.20 7.92 8.64 9.36 10.08	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 5.84 6.57 7.30 8.03 8.76 9.49 10.22	74 ct. 1.48 2.22 2.96 3.70 4.44 5.18 5.92 6.66 7.40 8.14 8.88 9.62 10.36	75 ct. 1.50 2.25 3.00 3.75 4.50 6.75 7.50 8.25 9.00 9.75 10.50	78 ct. 1.522 2.28 3.04 3.800 4.56 5.32 6.08 6.84 7.60 8.30 9.122 9.88 10.64	77 ct. 1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 8,47 9.24 10.01 10.78	78 ct. 1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02 7.80 8.58 9.36 10.14 10.92	79 ct. 1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 8.69 9.48 10.27 11.06	80 ct. 1.60 2.40 3.20 4.00 4.80 5.60 6.40 7.20 8.00 8.80 9.80 10.40 11.20	1.62 2.43 3.24 4.05 4.88 5.67 6.48 7.29 8.10 9.72 10.53 11.34	82 ct 1.64 2.46 3.28 4.10 4.62 5.74 6.76 7.38 8.20 9.02 9.02 9.02 10.66 11.48
2 3 4 5 6 7 8 9 10 11 12 13 14 15	72 ct. 1.44 2.16 2.88 3.60 4.32 5.04 5.76 6.48 7.20 7.92 8.64 9.36 10.08 10.08 11.52	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 6.84 6.57 7.30 8.03 8.76 9.49 10.25 10.95	74 ct. 1.48 2.22 2.98 3.70 4.44 5.18 5.92 6.66 7.40 8.14 8.88 9.62	75 ct. 1.50 2.25 3.00 3.75 4.50 6.75 7.50 8.25 9.00 9.75 10.50 11.25	78 ct 1.52 2.28 3.04 3.80 4.56 5.32 6.08 6.84 7.60 8.30 9.12 9.88 10.64 11.40	77 ct. 1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 8,47 9.24 10.01 10.78 11.55	78 ct. 1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02 7.80 8.58 9.36 10.14 10.92 11.70	79 ct.  1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 8.69 9.48 10.27 11.08 11.85	80 ct. 1.60 2.40 3.20 4.00 4.80 5.60 7.20 8.00 8.80 10.40 11.20 12.90 12.80	1.62 2.43 3.24 4.05 4.88 5.67 6.48 7.29 8.10 8.91 9.72 10.53 11.34 12.15	82 ct. 1.64 2.46 3.28 4.10 4.92 5.74 6.56 7.38 8.20 9.02 9.84 10.66 11.48 12.30 13.12
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	72 ct. 1.44 2.16 2.88 3.60 4.32 5.04 6.76 6.48 7.20 7.92 8.64 9.36 10.80 11.52 12.24	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 5.84 6.57 7.30 8.03 8.76 9.49 10.22 10.95 11.68 12.41	74 ct. 1.48 2.22 2.96 3.70 4.44 5.18 5.92 6.66 7.40 8.14 8.88 9.62 10.36 11.184 12.58	75 ct. 1.50 2.25 3.00 3.75 4.50 6.00 6.75 7.50 8.25 9.00 9.75 10.50 11.25 12.00 12.75	78 ct. 1.52 2.28 3.04 3.80 4.56 5.32 6.08 6.84 7.60 8.30 9.12 9.88 10.64 11.40 12.16 12.92	77 ct. 1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 8,47 9.24 10.01 10.78 11.55 12.32 13.09	78 ct. 1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02 7.80 8.58 9.36 10.14 10.92 11.70 12.48 13.26	79 ct.  1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 8.69 9.48 10.27 11.06 11.85 12.64 13.43	80 ct. 1.60 2.40 3.20 4.00 4.80 5.60 7.20 8.00 8.80 10.40 11.20 12.80 13.60	1.62 2.43 3.24 4.05 4.88 5.67 6.48 7.29 8.10 9.72 10.53 11.34 12.15 12.96 13.77	82 ct 1.64 2.46 3.28 4.10 4.92 5.74 6.56 7.38 8.20 9.02 9.84 10.66 11.48 12.30 13.12 13.94
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	72 ct. 1.44 2.16 2.88 3.60 4.32 5.04 6.76 6.48 7.20 7.92 8.64 9.36 10.80 11.62 12.24 12.96	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 6.57 7.30 8.03 8.76 9.49 10.22 10.95 11.68 12.41 13.14	74 ct. 1.48 2.22 2.96 3.70 4.44 5.18 5.92 6.66 7.40 8.14 8.88 9.62 10.36 11.84 12.58 13.32	75 ct. 1.50 2.25 3.00 3.75 4.50 5.25 6.00 6.75 7.50 8.25 9.00 9.75 10.50 11.25 12.75 13.50	78 ct. 1.52 2.23 3.04 3.80 4.56 5.32 6.08 7.60 8.30 9.12 9.88 10.64 11.40 12.96 12.96 13.68	77 ct. 1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 8,47 9.24 10.07 11.55 12.32 13.09 13.86	78 ct.  1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02 7.80 8.58 9.36 10.14 10.92 11.70 12.48 13.26 14.04	79 ct.  1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 9.48 10.27 11.06 11.85 12.64 13.43 14.23	80 ct. 1.60 2.40 3.20 4.00 4.80 6.60 6.40 7.20 8.00 9.60 10.40 11.20 12.80 13.60 14.40	1.62 2.43 8.24 4.05 4.88 5.67 6.48 7.29 8.10 8.91 9.72 10.53 11.34 12.15 12.96 13.77 14.58	82 ct 1.64 2.46 3.28 4.102 5.74 6.56 7.38 8.20 9.02 9.84 10.65 11.48 12.30 13.12 13.94 14.76
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	72 ct. 1.44 2.16 2.88 3.60 4.32 5.04 5.76 6.48 7.20 7.92 8.64 9.36 10.89 10.80 11.62 12.24 12.26 13.68	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 5.84 6.57 7.30 8.03 6.76 9.49 10.22 10.95 11.68 12.41 13.14	74 ct. 1.48 2.22 2.96 3.70 4.44 5.18 5.92 6.66 7.40 8.14 8.88 9.62 10.36 11.10 11.84 12.58 13.32 14.06	75 ct. 1.50 2.25 3.00 3.75 4.50 5.25 6.00 6.75 7.50 8.25 9.00 9.75 10.50 11.25 12.00 12.75 13.50 14.25	78 ct. 1.52 2.28 3.04 3.80 4.56 5.32 6.08 6.84 7.60 8.30 9.12 9.88 10.64 11.40 12.16 12.92 13.68 14.44	77 ct. 1.54 2.31 3.08 3.85 4.62 5.39 6.18 7.70 8.47 9.24 10.01 10.78 11.56 12.32 13.09 13.86 14.63	78 ct. 1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02 7.80 8.58 9.36 10.14 10.92 11.70 12.48 13.26 14.04 14.04 14.05	79 ct.  1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 9.48 10.27 11.06 11.85 12.64 13.43 14.22 15.01	80 ct. 1.60 2.40 3.20 4.00 6.40 7.20 8.80 9.60 10.40 11.20 12.80 13.60 14.40 15.20	1.62 2.43 3.24 4.05 4.88 5.67 6.48 7.29 8.10 8.91 9.72 10.53 11.34 12.15 12.96 13.77 14.58 15.39	82 ct 1.64 2.46 3.28 4.19 4.92 5.74 6.56 7.38 8.20 9.02 9.02 9.84 10.66 11.48 12.30 13.12 13.94 14.76 15.78
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25	72 ct. 1.44 2.16 2.88 3.60 4.32 5.04 6.76 6.48 7.20 7.92 8.64 9.36 10.80 11.62 12.24 12.96	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 6.57 7.30 8.03 8.76 9.49 10.22 10.95 11.68 12.41 13.14	74 ct. 1.48 2.22 2.96 3.70 4.44 5.18 5.92 6.66 7.40 8.14 8.88 9.62 10.36 11.84 12.58 13.32 14.06 14.80 18.50	75 ct. 1.50 2.25 3.00 3.75 4.50 5.25 6.00 6.75 7.50 8.25 9.00 9.05 11.25 12.00 12.76 13.50 14.25 15.00 18.75	78 ct. 1.52 2.23 3.04 3.80 4.56 5.32 6.08 6.84 7.60 8.30 9.12 9.12 9.12 11.40 12.16 12.92 13.68 14.44 15.20 19.00	77 ct. 1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 8,47 9.24 10.07 11.55 12.32 13.09 13.86	78 ct.  1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02 7.80 8.58 9.36 9.36 10.14 10.92 11.70 12.48 13.26 14.04 14.82 15.60	79 ct.  1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 8.69 9.48 10.27 11.06 11.85 12.64 13.43 14.22 15.01 15.80	80 ct. 1.60 2.40 3.20 4.80 5.60 6.40 7.20 8.80 9.80 10.40 11.20 12.00 12.00 14.40 15.20 16.00 20.90	1.62 2.43 3.24 4.05 4.88 5.67 6.48 7.29 8.10 8.91 9.72 10.53 11.34 12.15 12.96 13.77 14.58 15.39 16.20 20.25	82 ct 1.64 2.46 3.28 4.10 4.92 5.74 6.56 7.38 8.20 9.02 9.4 10.66 11.48 12.30 13.12 14.76 15.58 15.58 15.40 10.0
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25 30	72 ct. 1.44 2.18 2.88 3.60 4.32 5.04 5.76 6.48 7.20 7.92 8.64 9.36 10.08 10.08 11.52 12.24 12.95 13.68 14.40 18.00 21.60	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 5.84 6.57 7.30 8.76 9.49 10.22 10.95 11.68 12.41 13.14 13.87 14.60 18.25	74 ct. 1.48 2.22 2.96 3.70 4.44 5.18 5.92 6.66 7.40 8.14 8.88 9.62 10.36 11.10 11.84 12.58 13.32 14.06 14.80 18.50 22.20 22.20	75 ct. 1.50 2.25 3.00 3.78 4.50 6.76 7.50 8.25 9.00 9.75 10.50 11.25 12.00 14.25 15.00 18.76	78 ct. 1.52 2.28 3.04 3.80 4.56 5.32 6.08 7.60 8.30 9.12 9.88 10.64 11.40 12.16 12.92 13.68 14.44 15.20 19.00 22.80	77 ct. 1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 9.24 10.01 10.78 11.55 12.32 13.09 13.88 14.63 15.40 19.25 23.10	78 ct. 1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02 7.80 8.58 9.36 10.14 10.92 11.70 12.48 13.26 14.04 14.82 15.60 19.50	79 ct.  1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 8.69 9.48 10.27 11.06 11.85 12.64 13.43 14.22 15.01 15.80 19.75 23.70	80 ct. 1.60 2.40 3.20 4.00 4.80 5.60 6.40 7.20 8.00 10.40 11.20 12.00 12.00 13.60 14.40 15.20 16.00 20.00 24.00	1.62 2.43 3.24 4.05 4.88 5.87 6.48 7.29 8.10 9.72 10.53 11.34 12.15 12.96 13.77 14.58 15.39 16.20 20.25 24.30	1.64 2.46 3.28 4.10 4.92 5.74 6.56 7.38 8.84 11.48 12.30 13.12 13.13 14.14.76 15.58 15.58 15.58 15.58 15.58 15.58 15.60 20.50 20.60 20.60
2 3 4 5 6 7 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25 30 40	72 ct.  1.44 2.18 3.60 4.32 5.04 5.76 6.48 7.20 7.92 6.64 9.36 10.80 11.52 12.24 12.96 13.68 14.40 21.60 21.60 28.80	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 5.84 6.57 7.30 8.03 6.76 9.49 10.22 10.92 11.68 12.41 13.14 14.60 18.25 21.90 29.20	74 ct.  1.48 2.22 2.96 3.70 4.44 5.92 6.66 7.40 8.84 9.62 11.10 11.84 12.58 13.40 14.80 18.50 29.60	75 ct. 1.50 2.25 3.00 3.75 4.50 6.00 6.75 7.50 8.25 9.00 9.75 10.50 11.25 12.00 12.75 13.50 14.25 15.00 18.75 20.00 18.75 20.00 18.75 19.00 19.75 10.50	78 ct. 1.52 2.28 3.84 3.80 4.56 5.32 6.08 6.84 7.60 8.30 9.12 9.88 10.64 11.40 12.16 12.92 13.68 14.44 15.20 19.00 22.80 30.40	77 ct.  1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 8,47 9.24 10.01 10.78 11.55 12.32 13.09 13.88 14.63 15.40 19.25 23.10	78 ct.  1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02 7.80 9.36 10.14 10.92 11.70 12.48 13.26 14.04 14.82 15.60 19.50 23.40 31.20	79 ct.  1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 9.48 10.27 11.06 11.85 12.64 13.43 14.22 15.01 15.80 19.75 23.70	80 ct. 1.60 2.40 3.20 4.00 4.80 5.60 6.40 7.20 8.80 9.60 10.40 11.20 12.80 13.60 14.40 15.20 16.00 20.00 24.00 32.00	1.62 2.43 3.24 4.05 4.88 6.67 6.48 7.29 8.10 8.91 9.72 10.53 11.34 12.15 12.96 13.77 14.58 15.39 16.20 20.25 24.30 32.40	82 ct 1.64 2.46 3.28 4.10 4.92 5.74 6.56 7.38 8.20 9.84 10.65 11.48 12.30 13.12 13.94 14.76 15.54 15.54 15.54 15.54 15.54 16.56 17.38 18.20 19.84 10.65 11.48 12.30 13.12 13.94 14.76 15.54 15.54 15.54 15.54 15.54 15.54 15.54 16.56 16.56 17.38 17.30 17
2 3 4 5 6 7 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25 30 40 50 50 50 50 50 50 50 50 50 50 50 50 50	72 ct. 1.44 2.18 3.60 4.32 5.04 6.76 6.48 7.20 7.92 8.64 9.36 10.89 10.89 11.52 12.26 12.26 13.68 14.40 18.00 21.69 28.80 36.00	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 5.84 8.57 7.30 8.76 9.49 11.68 11.68 11.3.14 13.87 14.69 12.41 13.87 14.90 29.20 36.50	74 ct. 1.48 2.22 2.96 3.70 4.44 5.18 5.92 6.66 6.66 11.10 11.10 11.10 11.10 11.10 11.40 11.	75 ct. 1.50 2.25 3.00 3.75 4.50 6.00 6.75 7.50 8.25 9.00 9.75 10.50 11.25 12.76 13.50 14.25 15.00 18.75 22.50 30.00 37.50	78 ct. 1.52 2.23 3.04 3.80 4.56 5.32 6.08 7.60 8.30 9.12 9.88 10.64 11.40 12.92 13.68 14.44 15.20 19.00 22.80 30.40 38.60	77 ct.  1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 8,47 9.24 10.01 10.78 11.55 12.32 13.09 13.86 14.63 15.40 19.25 23.10 30.80 38.50	78 ct.  1.56 2.34 3.90 4.68 6.24 7.02 7.80 8.58 9.38 10.14 10.92 11.70 12.48 13.26 14.04 14.82 15.60 19.50 23.40 31.20 33.90	79 ct.  1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 8.69 9.48 10.27 11.06 11.85 12.64 13.43 14.22 15.01 15.80 19.75 23.70 31.60	80 ct. 1.60 2.40 4.80 5.60 6.40 7.20 8.80 9.80 10.40 11.20 12.00 12.80 13.60 14.40 20.00 24.00 32.00 40.00	1.62 2.43 3.24 4.05 4.88 6.67 6.48 7.29 8.10 8.91 9.72 10.53 11.34 12.15 12.96 13.77 14.58 15.39 16.20 20.25 24.30 32.40 40.50	1.64 2.46 3.28 4.10 4.92 5.74 6.56 7.38 8.20 9.02 10.66 11.48 12.30 13.12 13.94 14.76 15.58 13.40 20.50 24.60 32.80 41.00
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25 30 60 60 70 60 60 60 60 60 60 60 60 60 60 60 60 60	72 ct.  1.44 2.18 3.60 4.32 5.04 5.76 6.48 7.20 7.92 6.64 9.36 10.80 11.52 12.24 12.96 13.68 14.40 21.60 21.60 28.80	73 et. 1.46 2.19 2.92 3.65 4.38 5.11 5.84 6.57 7.30 8.03 6.76 9.49 10.22 10.92 11.68 12.41 13.14 14.60 18.25 21.90 29.20	74 ct.  1.48 2.22 2.96 3.70 4.44 5.92 6.66 7.40 8.84 9.62 11.10 11.84 12.58 13.40 14.80 18.50 29.60	75 ct.  1.50 2.25 3.00 3.75 4.50 5.25 6.00 6.75 7.50 8.25 9.00 9.75 10.50 11.25 12.00 12.75 13.50 14.25 15.00 18.75 22.50 30.00 37.500	78 ct. 1.52 2.23 3.04 3.80 4.56 5.32 6.08 6.84 7.60 9.12 9.88 10.64 11.40 12.13 13.68 14.44 15.20 19.00 22.80 30.40 38.60 45.60 45.60 38.60 45.60	77 ct.  1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 8,47 9.24 10.01 10.78 11.55 12.32 13.09 13.88 14.63 15.40 19.25 23.10	78 ct.  1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02 7.80 9.36 10.14 10.92 11.70 12.48 13.26 14.04 14.82 15.60 19.50 23.40 31.20	79 ct.  1.58 2.37 3.16 3.95 4.74 5.53 6.32 7.11 7.90 9.48 10.27 11.06 11.85 12.64 13.43 14.22 15.01 15.80 19.75 23.70	80 ct. 1.60 2.40 3.20 4.00 4.80 5.60 6.40 7.20 8.80 9.60 10.40 11.20 12.80 13.60 14.40 15.20 16.00 20.00 24.00 32.00	1.62 2.43 3.24 4.05 4.88 5.67 6.48 7.29 8.10 8.91 19.72 10.53 11.34 12.15 12.96 13.77 14.58 15.39 16.20 20.25 24.30 40.50 48.60	82 ct 1.64 2.46 3.28 4.102 5.74 6.56 7.38 8.20 9.84 10.66 11.48 12.30 13.12 13.94 14.76 15.58 13.40 24.60 32.80 41.00 49.20 57.40
2 3 4 4 5 6 6 7 7 8 8 9 10 111 122 133 144 15 5 166 17 18 19 20 25 30 60 60 70 80 80	72 ct.  1.44 2.16 2.88 3.60 4.32 5.04 6.48 7.20 7.92 8.64 10.89 10.80 11.52 12.24 14.40 18.00 28.80 36.00 36.00 43.20 50.40 57.60	73 et.   1.466   2.199   2.922   3.656   4.388   6.571   6.844   6.57   7.30   8.03   8.76   10.222   11.68   12.41   13.87   14.60   4.380   5.58   4.380   5.58   4.58   5.58   5.58   4.58   5.58	74 ct.  1.48 2.22 2.96 4.44 5.18 8.88 9.62 6.66 11.10 11.84 11.33 14.06 22.20 22.20 37.00 44.40 51.89	75 ct	78 ct	77 ct.  1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 9.24 10.01 10.78 11.55 12.32 13.09 13.88 14.63 14.63 15.40 19.25 23.25 38.50 61.60 61.60	78 ct.  1.56 2.34 3.12 3.90 4.68 5.46 6.24 7.02 7.80 8.58 9.38 10.14 10.92 11.70 12.48 13.26 14.04 14.82 23.40 31.20 33.900 46.80 54.60 62.40	79 ct.  1.58 2.37 3.16 3.95 4.74 6.53 6.32 7.11 7.90 8.69 9.48 10.27 11.06 11.85 12.64 13.43 14.22 15.01 15.80 19.75 23.70 31.60 39.50 47.40 55.30	80 ct. 1.60 2.40 4.00 4.80 6.40 7.20 8.00 8.00 10.40 11.20 12.00 12.30 14.40 15.20 16.00 20.00 24.00 32.00 48.00 56.00 64.00 64.00	1.62 2.43 3.24 4.05 4.88 5.67 6.48 7.29 8.10 8.91 9.72 10.53 11.34 12.15 12.15 12.15 12.25 24.30 32.40 40.50 48.60 56.70 64.80	82 ct 1.64 2.46 3.28 4.10 6.56 7.38 8.20 9.02 8.41 10.68 11.48 12.30 13.12 14.76 15.40 20.50 24.60 32.80 49.20 49.20 57.40 6.56 6.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 25 30 60 70 70 70 70 70 70 70 70 70 70 70 70 70	72 ct.  1.44 2.18 2.88 3.60 4.32 5.04 5.76 6.48 7.20 7.92 8.64 9.36 10.08 10.80 11.52 12.24 12.96 13.68 14.40 18.00 21.60 28.80 28.60 43.20 50.40	73 et.   1.466 2.199 2.922 3.656 4.388 5.111 6.57 7.30 10.22 10.35 11.688 11.688 12.41 13.14 13.14 13.14 6.0 18 25 21.90 36 50 45.10 45.10 10.20	74 ct. 1.48 2.22 2.96 6.66 7.40 4.44 6.18 6.92 6.66 7.40 11.10 11.84 12.58 13.32 11.10 13.50 14.80 13.70 29.60 6.66 6.66 11.10 11.84 12.58 13.32 13.70	75 ct	78 ct	77 ct.  1.54 2.31 3.08 3.85 4.62 5.39 6.18 6.93 7.70 9.24 10.01 10.78 11.55 12.32 13.09 13.86 14.63 15.40 19.25 23.10 30.80 38.50 46.20 61.60 69.30	78 ct.  1.56 2.34 3.90 4.68 6.24 7.02 7.80 8.58 9.36 10.14 10.92 11.70 12.48 13.26 14.04 14.82 15.60 23.40 31.20 39.00 46.80	79 ct.  1.58 2.37 3.16 3.95 4.74 4.74 5.53 6.32 1.06 8.69 9.48 10.27 11.06 11.85 12.64 13.43 14.22 15.01 19.75 23.70 39.50 63.20 65.30 65.20 65.30 65.20	80 ct.  1.60 2.40 3.20 4.00 4.80 6.40 6.40 9.80 9.80 10.40 11.20 12.80 13.60 14.40 15.20 16.00 24.00 32.00 40.00 48.00 56.00 66.00 66.00	1.62 2.43 3.24 4.05 4.88 5.67 6.48 7.29 8.10 8.91 9.72 10.63 11.34 12.15 12.96 13.77 14.58 15.39 16.20 20.25 24.30 32.40 40.50 48.60 72.90 64.80 72.90	82 ct 1.64 2.46 3.28 4.102 5.74 6.56 7.38 8.20 9.84 10.66 11.48 12.30 13.12 13.94 14.76 15.58 13.40 24.60 32.80 41.00 49.20 57.40

### READY RECKONER.

If the Number required is not found in the Tables, add two Numbers together; for instance, if 35 bushels are required, add the prices opposite 20 and 5 together; and so for 365 bushels—treble the value of 100, and add 60 and 5 together.

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Nos	83 ct.	84 ct.	85 ct.	86 ct.	87 ct.	871/2ct	. 88 ct.	89 cţ.	90 ct.	91 ct.	92 c€
2	1.66	1.68	1.70	1.72	1.74	1.75	1.76	1.78	1.80	1,82	1.84
2 3	2.49	2.52	2.55	2,28	2.61	2.621/	2.64	2.67	2.70	2.73	2.76
4 1	3.32	3.36	3.40	3.44	3.48	3,50	3.52		3.60	3.64	3.68
5 6	4.15	4.20	4.25	4.30	4.35	4.371/	4.40	4.45	4.50	4.55	4.60
6	4.98	5.04	5.10	5.16	5.22	5.25	5.28	5.34	5.40 6.30	5.48 6.37	5.52 6.44
7 8 9	5.8I 6.64	5.88 6.72	5.95 6.80	6.02 6.88	6.09		6.16 7.04	6.23 7.12	7.20	7.28	7.36
0	7.47	7.56	7.65	7.74	7.83	7.871		8.01	8.10	8,19	8.28
10	8.30	8.40	8.50	8.60	8.70	8.75	8.80		9.00	9.10	9.20
11	9.13	9.24	9.35	9.46	9.57	9.621	9.68		9.90	10.01	10.12
12	9.96	10.08	10.20	10.32	10.44	10.50	10.56		10.80	10.92	11.04
13	10.79	10.92	11.05	11.18	11.31	11.371	11.44	11.57	11.70	11.83	11.96
14	11.62	11.76	11.90	12.04		12.25	12.32		12.00	12.74	12.88
15	12.45	12.60	12.75 13.60	12.90	13.00	13.125 14.00	13.20 14.08		13.50 14.40	13.65 14.56	13.80 14.72
16 17	13.28 14.11	13.44 14.28	14,45	13.76 14.62	14 70	14.871	14.96	15.13	15.30	15.47	15.64
18	14.94	15.12	15.30	15.48	15 66	15.75	15.84	16.02	16.20	16.38	16.56
19	15.77	15.96	16.15	15.34	16.5	16.624	16.72	16.91	17.10	17.29	17.48
20	16.60	16.80	17.00	17.20	17.40	17.50	17.60	17.80	18.00	18.20	18.40
25	20.75	21.00	21,25	21.50	21.7	21.873	22.00	22.25	22.50	22.75	23.00
30	24.90	25.20	25.50	25.80	26.10	26.25	26.40	26.70	27.00	27.30	27.60
40	33.20	33.60	34.00	34,40		35.00	35.20			36.40	36.80
50	41.50	42.00	42.50	43.00	43.50	43.75	52.80	44.50	45.00	45.50 54.60	46.00 55.20
60	49.80	50.40	51.00	51.60 60.20	60.00	52.50	61.60	53.40 62.30		63.70	64,40
70 80	58.10 66.40	58.80 67.20	59.50 68.00	68.80		76.00	70.40			72.80	73.60
90	74.70	75.60	76.50	77.40		78.75	79.20	80.10	81.00	81.90	82.80
100	83.00	84.00	85.00	86.00		87.50	88.00	89.00		91.00	92.00
		1		1					1	1	
Nos	93 ct.	94 ct			ct.	97 ct.	98 ct.	99 ct.	\$1.	\$2.	\$3.
2	1.86	1,8	8 1.	90	ct. 1	77 ct.	98 ct.	99 ct.	2	4.	6.
2	1.86 2.79	1.8	8 1. 2 2.	90   1	ct. 1.92 2.88	97 ct.	98 ct. 1.96 2.94	99 ct. 1.98 2.97	. 3	4.	6.
2 3 4	1.86 2.79 3.72	1.8 2.8 3.7	8 1. 2 2. 6 3.	90   1 85   3	1.92 2.88 3.84	1.94 2.91 3.88	98 ct. 1.96 2.94 3.92	99 ct.	2	4. 6. 8.	6. 9. 12. 15.
2 3 4	1.86 2.79 3.72 4.65	1.8 2.8 3.7 4.7	8 1. 2 2. 6 3. 0 4.	90   85   80   75	ct. 1.92 2.88	1.94 2.91 3.88 4.85 5.82	98 ct. 1.96 2.94	99 ct. 1.98 2.97 3.66 4.95 5.94	23456	4. 6. 8. 10. 12.	6. 9. 12. 15. 18.
2 3 4 5 6 7	1.86 2.79 3.72 4.65 5.58 6.51	1.8 2.8 3.7 4.7 5.6 6.5	8 L. 2 2. 6 3. 0 4. 4 5. 8 6.	90   85   880   75   65   65	1.92 2.88 3.84 4.80 5.76 6.72	1.94 2.91 3.88 4.85 5.82 6.79	98 ct. 1.96 2.94 3.92 4.90 5.88 6.86	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93	2 3 4 5 6 7.	4. 6. 8. 10. 12. 14.	6. 9. 12. 15. 18. 21.
2 3 4 5 6 7 8	1.86 2.79 3.72 4.65 5.58 6.51 7.44	1.8 2.8 3.7 4.7 5.6 6.5 7.5	8 L. 2 2. 6 3. 0 4. 4 5. 8 6. 2 7.	90   185   186   187   1	1.92 2.88 3.84 4.80 5.76 6.72 7.68	1.94 2.91 3.88 4.85 5.82 6.79 7.76	98 ct. 1.96 2.94 3.92 4.90 5.89 6.86 7.84	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92	2. 3. 4. 5. 6. 7. 8.	4. 6. 8. 10. 12. 14. 16.	6. 9. 12. 15. 18. 21. 24.
2 3 4 5 6 7 8 9	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37	1.83 2.83 3.70 4.70 5.66 6.55 7.55 8.4	8 1. 2 2. 6 3. 0 4. 4 5. 8 6. 2 7. 6 8.	90   185   186   187   1	1.92 2.88 3.84 4.80 5.76 6.72 7.68 8.64	1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73	98 ct. 1.96 2.94 3.92 4.90 5.89 6.86 7.84 8.82	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91	2 3 4 5 6 7. 8. 9.	4. 6. 8. 10. 12. 14. 16. 18.	6. 9. 12. 15. 18. 21. 24. 27.
2 3 4 5 6 7 8 9	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30	1.83 2.83 3.70 4.70 5.66 6.5 7.55 8.44 9.4	8 L. 2 2. 3. 0 4. 4. 5. 6. 2 7. 6 8. 0 9.	90   185   80   75   70   65   60   55   50   1	1.92 2.88 3.84 4.80 5.76 6.72 7.68 8.64 9.60	1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73 9.70	98 ct. 1.96 2.94 3.92 4.90 5.89 6.86 7.84 8.82 9.80	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 9.90	2. 3. 4. 5. 6. 7. 8. 9.	4. 6. 8. 10. 12. 14. 16. 18. 20.	6. 9. 12. 15. 18. 21. 24. 27. 20.
2 3 4 5 6 7 8 9 10	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23	1.8 2.8 3.7 4.7 5.6 6.5 7.5 8.4 9.4 10.3	8 1. 2 2. 3 3. 0 4. 4 5. 8 6. 2 7. 6 8. 0 9.	90   85   880   75   70   65   60   55   50   45   10	1.92 2.88 3.84 4.80 5.76 6.72 7.68 8.64 9.60 0.56	1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73 9.70 10.67	98 ct. 1.96 2.94 3.92 4.90 5.89 6.86 7.84 8.82 9.80 10.78	99 ct.  1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 9.90 10.89	2. 3. 4. 5. 6. 7. 8. 9. 10.	4. 6. 8. 10. 12. 14. 16. 18. 20.	6. 9. 12. 15. 18. 21. 24. 27. 20.
2 3 4 5 6 7 8 9 10	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16	1.8 2.8 3.7 4.7 5.6 6.5 7.5 8.4 9.4 10.3 11.2	8 1. 22 2. 3. 0 4. 4 5. 8 6. 22 7. 6 8. 0 9. 4 10. 8 11.	90   85   880   775   70   65   60   55   50   45   40   1	1.92 2.88 3.84 4.80 5.76 6.72 7.68 8.64 9.60 0.56 1.52	97 ct.  1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73 9.70 10.67 11.64	98 ct. 1.96 2.94 3.92 4.90 5.88 6.86 7.84 8.82 9.80 10.78 11.76	99 ct.  1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 9.90 10.89 11.88	2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24.	6. 9. 12. 15. 18. 21. 24. 27. 20. 33.
2 3 4 5 6 7 8 9 10 11 12 13	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09	1.8 2.8 3.7 4.7 5.6 6.5 7.5 8.4 9.4 10.3 11.2	8 1. 2 2. 6 3. 0 4. 4 5. 8 6. 2 7. 6 8. 0 9. 4 10. 8 11. 2 12.	90   85   80   75   70   65   60   55   50   45   40   1   35   1	1.92 2.88 3.84 4.80 5.76 7.68 8.64 9.60 0.56 1.52 2.48	1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73 9.70 11.64 12.61	98 ct. 1.96 2.94 3.92 4.90 5.88 6.86 7.84 8.82 9.80 10.78 11.76 12.74	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 9.90 10.89 11.88 12.87	2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13.	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24. 26.	6. 9. 12. 15. 18. 21. 24. 27. 20. 33. 36. 39.
2 3 4 5 6 7 8 9 10 11 12 13 14	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09 13.02	1.8 2.8 3.7 4.7 5.6 6.5 7.5 8.4 9.4 10.3 11.2 12.2 13.1	8 1. 2 2 2. 6 3. 0 4. 4 5. 8 6. 2 7. 6 8. 0 9. 4 10. 8 11. 12. 12. 12. 13.	90   85   80   75   65   66   65   65   65   65   61   45   11   40   11   335   1   330   1	1.92 2.88 3.84 4.80 5.76 6.768 8.64 9.60 0.56 1.52 2.48 3.44	97 ct.  1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73 9.70 10.67 11.64	98 ct. 1.96 2.94 3.92 4.90 5.89 6.86 7.84 8.82 9.80 10.78 11.76 12.74 13.72	99 ct.  1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 9.90 10.89 11.88	2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24. 26. 28. 30.	8. 9. 12. 15. 18. 21. 24. 27. 20. 33. 36. 39.
2 3 4 5 6 7 7 8 9 10 11 12 13 14 15 16	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09	1.8 2.8 3.7 4.7 5.6 6.5 7.5 8.4 9.4 10.3 11.2	8 1. 2 2 2. 6 3. 0 4. 4 5. 8 6. 2 7. 6 8. 0 9. 4 10. 8 11. 12 12. 12 12. 6 13. 0 14.	90   85   86   775   770   665   660   555   11   12   12   12   12   12   1	1.92 2.88 3.84 4.80 5.76 5.72 7.68 8.64 9.60 0.56 1.52 2.48 3.44 4.40 5.36	1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73 9.70 10.67 11.64 12.61 13.58 14.55 15.52	98 ct. 1.96 2.94 3.92 4.90 5.89 6.86 7.84 8.82 9.80 10.78 11.76 12.74 13.72 14.70 15.68	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 9.90 10.89 11.88 12.87 13.86 14.85 15.84	2. 3. 4. 6. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16.	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24. 26. 28. 30. 32.	6. 9. 12. 15. 18. 21. 24. 27. 20. 33. 36. 39. 42. 45.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09 13.02 13.92 14.88 15.81	1.8 2.8 3.7 4.7 5.6 6.5 7.5 8.4 9.4 10.3 11.2 12.2 13.1 14.1 15.0	8 1. 2 2 3. 3 4 4. 5 8 6. 8 8 6. 9 9 4 10. 8 11. 12. 12. 13. 14. 14. 15. 16. 18. 18. 18. 18. 18. 18. 18. 18	90   85   80   75   76   65   60   55   50   45   11   40   1   35   1   225   1   15   1   15   1	1.92 2.88 3.84 4.80 5.76 6.72 7.68 8.64 9.60 0.56 1.52 2.48 3.44 4.40 5.36 6.32	1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73 9.70 10.67 11.64 12.61 13.58 14.55 14.55 15.62 16.49	98 ct. 1.96 2.94 3.92 4.90 5.88 6.86 7.84 8.82 9.80 10.78 11.76 12.74 13.72 14.70 15.68 16.66	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 9.90 10.89 11.89 12.87 13.86 14.85 15.84 16.83	2 3 4 4 5 6 7. 8 9. 10. 112 13 14 15 15 17.	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24. 26. 28. 30. 32. 34.	6. 9. 12. 15. 18. 21. 24. 27. 20. 33. 36. 39. 42. 48. 48.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09 13.02 13.95 14.88 15.81 16.74	1.8 2.8 3.7 4.7 5.6 6.5 7.5 8.4 9.4 10.3 11.2 12.2 13.1 14.1 15.0 15.9 16.9	8 1. 2 2. 3. 0 4. 5. 8 6. 2 7. 6 8. 0 9. 4 10. 8 11. 2 12. 6 13. 0 14. 4 15. 8 16.	90   85   86   87   75   77   65   66   60   11   135   11   125   11   15   11   11   11	1.92 2.88 3.84 4.80 5.76 7.68 8.64 9.60 0.56 1.52 2.48 3.44 4.40 5.36 6.32 7.28	1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73 9.70 10.67 11.64 12.61 13.58 14.55 15.52 16.52 17.46	98 ct. 1.96 2.94 3.92 4.90 5.89 6.86 7.84 8.82 9.80 10.78 11.76 12.74 13.72 14.70 15.68 16.66 17.64	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 9.90 10.89 11.88 12.87 13.86 14.85 15.84 16.83 17.82	2 3 4 5 6 7 7 8 8 9 10 11 12 13 14 15 16 16 17 18	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24. 26. 28. 30. 32. 34. 36.	6. 9. 12. 15. 18. 21. 24. 27. 20. 33. 36. 39. 42. 45. 48. 51.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09 13.02 13.95 14.88 15.81 16.74 17.67	1.8 2.8 3.7 4.7 5.6 6.5 7.5 8.4 10.3 11.2 12.2 13.1 14.1 15.0 15.9 16.9 17.8	8 1. 2 2. 3. 0 4. 5. 8 6. 2 7. 6 8. 0 9. 4 10. 8 11. 12 12. 12 12. 6 13. 0 14. 15. 16. 16. 17. 18. 18. 18. 19. 19. 19. 19. 19. 19. 19. 19	90   85   86   775   776   65   66   66   66   66	1.92 2.88 3.84 4.80 5.76 6.72 7.68 8.64 9.60 0.56 1.52 2.48 3.44 4.40 5.36 6.32 8.64 9.60	1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73 9.70 10.67 11.64 12.61 13.58 14.55 16.49 17.46	98 ct. 1.96 2.94 3.92 4.90 5.88 6.86 7.84 8.82 9.80 10.78 11.76 12.74 13.72 14.70 15.68 16.66 17.64 18.62	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 9.90 10.89 11.88 12.87 13.86 14.85 15.84 16.83 17.82 18.81	2 3 4 6 6 7. 8 9. 10. 11. 12. 13. 14. 15. 16. 17. 19.	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24. 26. 28. 30. 32. 34. 38.	9. 12. 15. 18. 21. 24. 27. 20. 33. 36. 39. 42. 45. 48. 51.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 20 20 20 20 20 20 20 20 20 20 20 20	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09 13.02 13.95 14.88 15.81 16.74 17.67 18.60	1.8 2.8 3.7 4.7 5.6 6.5 7.5 8.4 10.3 11.2 12.2 13.1 15.0 15.9 16.9 17.8 18.8	8 1. 2 2. 3 4. 4 5. 8 6. 2 7. 6 8. 9 9. 4 10. 8 11. 12. 13. 14. 15. 16. 17. 16. 18. 16. 17. 16. 17. 16. 17. 16. 17. 16. 17. 17. 17. 17. 17. 17. 17. 17	90   85   86   875   70   66   60   65   60   60   60   60   6	1.92 2.88 3.84 4.80 5.76 6.72 7.68 8.64 9.60 9.56 1.52 2.48 3.44 4.40 5.36 6.32 7.28 8.24	1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73 9.70 10.67 11.64 12.61 13.58 14.55 14.55 15.62 16.49 17.46 18.43	98 ct. 1.96 2.94 3.92 4.90 5.88 6.86 7.84 8.82 9.80 10.78 11.76 12.74 13.72 14.70 15.68 16.66 17.64 18.62 19.60	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 9.90 10.89 11.88 12.87 13.86 14.85 15.84 16.83 17.82 18.81 19.80	2 3,4 6,6 7,8 9,10,11,11,13,14,15,16,17,18,17,18,19,19,19,19,19,19,19,19,19,19,19,19,19,	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24. 26. 28. 30. 32. 34. 36. 38.	9. 12. 15. 18. 21. 24. 27. 20. 33. 36. 39. 42. 45. 45. 51. 54. 57. 60.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 20 20 20 20 20 20 20 20 20 20 20 20	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09 13.02 13.95 14.88 15.81 16.74 17.67 18.60 23.25	1.8 2.8 3.7 4.7 5.6 6.5 7.5 8.4 9.4 10.3 11.2 12.2 13.1 14.1 15.0 17.8 17.8 18.2 3.5	8 1.2 2 2.3 0 4.4 5.6 6.2 2 7.7 6 8.0 0 9.0 14.1 11.2 11.2 11.2 11.2 11.2 11.3 11.1 11.1	90   85   85   87   87   87   87   87   87	1.92 2.88 3.84 4.80 5.76 5.76 7.68 8.64 9.60 0.56 1.52 2.48 3.44 4.40 6.32 7.28 8.24 8.24 8.24 8.24 8.24 8.24 8.24 8	1.94 2.91 3.88 4.85 5.82 6.79 9.70 10.67 11.64 12.61 13.58 14.55 15.52 16.49 17.46 18.43 19.40	1.96 2.94 3.92 4.90 5.88 6.86 7.84 8.82 9.80 10.78 11.76 12.74 13.72 14.70 15.68 16.66 16.68 11.64 18.62 19.60 19.64	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 10.89 11.88 12.87 13.86 14.85 15.84 16.83 17.82 18.81 19.90 24.75	23.4.6.6.7.8.8.9.10.11.12.13.14.15.16.16.17.18.19.20.25.	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24. 26. 30. 32. 34. 36. 38. 40.	9. 12. 15. 18. 21. 24. 27. 20. 33. 36. 39. 42. 45. 48. 51. 54. 57. 60.
2 3 4 5 6 7 7 8 9 10 11 12 13 14 15 16 17 18 19 20 20 20 20 20 20 20 20 20 20 20 20 20	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09 13.05 14.88 15.81 16.74 17.67 18.60 23.25 27.90	1.8 2.8 3.7 4.7 5.6 6.5 7.5 8.4 9.4 10.3 11.2 12.1 13.1 14.1 15.0 15.9 17.8 18.8 23.2	8 1. 2 2 2. 3 4. 4 5. 6 6. 2 7. 6 8. 0 9. 4 10. 8 11. 2 12. 2 12. 6 13. 0 14. 4 15. 8 16. 2 17. 6 18. 10. 10. 10. 10. 10. 10. 10. 10	90   85   85   86   75   70   66   60   65   65   60   60   60   6	i ct. 1.92 2.88 3.84 4.80 5.76 6.72 7.68 8.960 0.56 1.52 2.48 4.40 5.36 6.32 7.28 8.24 9.20 8.80	1.94 2.91 3.88 5.82 6.79 7.76 8.73 9.70 10.67 11.64 12.61 13.58 14.55 16.49 17.46 18.43 19.40 24.25	98 ct. 1.96 2.94 3.92 4.90 5.88 6.86 7.84 8.82 9.80 10.78 11.76 12.74 13.72 14.70 15.68 16.66 17.64 18.62 19.60	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 9.90 10.89 11.88 12.87 13.86 14.85 15.84 16.83 17.82 18.81 19.80	2 3,4 6,6 7,8 9,10,11,11,13,14,15,16,17,18,17,18,19,19,19,19,19,19,19,19,19,19,19,19,19,	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24. 26. 28. 30. 32. 34. 36. 38.	9. 12. 15. 18. 21. 22. 27. 20. 33. 36. 39. 42. 48. 54. 57. 60. 75. 90.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 20 5 30 4 4 5 6 6 17 18 18 18 18 18 18 18 18 18 18 18 18 18	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09 13.02 13.95 14.88 15.81 16.74 17.67 18.60 23.25 27.90	1.8 2.7 4.7 5.6 6.5 7.5 8.4 9.4 10.3 11.2 12.2 13.1 15.0 15.9 16.9 17.8 23.5 29.2 37.6	8 1.2 2 2.3 0 4.5 8 6.7 6 8.9 9 4 10.8 8 11.2 2 12.2 6 13.3 16.2 17.8 18.8 16.9 19.0 19.0 19.0 19.0 23.0 23.0 20.0 23.0 20.0 23.0 20.0 23.0 20.0 23.0 20.0 23.0 23	90   90   90   90   90   90   90   90	1.92 2.88 3.84 4.80 5.76 5.76 7.68 8.64 9.60 0.56 1.52 2.48 3.44 4.40 6.32 7.28 8.24 8.24 8.24 8.24 8.24 8.24 8.24 8	1.94 2.91 3.88 4.85 5.82 6.79 9.70 10.67 11.64 12.61 13.58 14.55 15.52 16.49 17.46 18.43 19.40	1.96 2.94 3.92 4.90 5.88 6.86 7.84 8.82 9.80 10.78 11.76 12.74 13.72 15.68 16.66 17.64 17.64 19.60 24.50 29.40	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 9.90 10.89 11.89 12.87 13.86 14.85 14.85 15.84 16.83 17.82 18.81 19.80 24.75 29.70	2.3 4.5 6.6 7.8 8.9.10.11.12.11.11.11.11.11.11.11.11.11.11.11.	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24. 26. 28. 32. 34. 36. 38. 40. 60. 80. 190.	9. 12. 15. 18. 21. 24. 27. 20. 33. 36. 39. 42. 45. 48. 51. 60. 75. 60. 120. 150.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 20 5 30 4 4 5 6 6 17 18 18 18 18 18 18 18 18 18 18 18 18 18	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09 13.02 13.02 13.95 14.88 15.81 16.74 17.67 18.60 23.25 27.90 37.20 46.50	1.8 3.7 4.7 5.6 6.5 7.5 8.4 9.4 10.3 11.2 12.2 13.1 15.0 15.9 17.8 29.2 37.6 47.0	8 1.2 2 2.3 3 0 4.4 5.8 8 6.8 8 6.8 9.9 4 10.9 12.2 12.2 12.2 12.3 13.3 14.4 15.5 16.0 19.0 19.0 19.0 19.0 19.0 19.0 19.0 19	90   90   90   90   90   90   90   90	1.92 2.88 3.84 1.80 5.76 5.77 6.87 1.62 2.48 3.44 4.40 6.32 4.40 6.32 8.64 4.40 8.63 8.64 4.40 8.63 8.64 8.63 8.64 8.64 8.64 8.65 8.64 8.65 8.64 8.65 8.65 8.65 8.65 8.65 8.65 8.65 8.65	77 ct.  1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73 9.70 10.67 11.64 12.61 13.58 14.55 15.52 16.49 17.46 18.43 19.40 24.25 29.10 38.80 48.50	98 ct.  1.96 2.94 3.92 4.90 5.88 6.86 7.84 8.82 9.80 10.78 11.76 12.74 13.72 14.70 15.68 16.66 17.64 18.62 19.60 24.50 29.40 39.20 49.00 39.20 49.00	99 ct. 1.98 2.97 3.66 4.95 5.94 7.92 8.91 9.89 10.89 11.88 12.87 13.86 14.85 15.84 16.83 17.82 18.91 19.90 24.75 29.70 39.00 49.50 59.40	2.3 4.5.6.6.7.8.9.9.9.10.11.11.11.11.11.11.11.11.11.11.11.11.	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24. 26. 30. 32. 34. 36. 38. 40. 50. 60. 80. 120.	9. 12. 15. 18. 21. 24. 27. 20. 33. 38. 39. 42. 45. 45. 45. 60. 75. 60. 75. 120. 120. 130.
2 3 4 5 6 6 7 8 9 10 11 12 12 13 14 15 16 17 18 19 20 25 3 40 40 5 6 6 7 7 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09 13.09 13.95 14.88 15.81 16.74 17.67 18.60 23.25 27.90 37.20 46.50 55.80	1.8 2.8 3.7 4.7 5.6 6.5 7.5 8.4 10.3 11.2 12.1 12.1 15.9 16.9 17.8 23.5 29.2 47.0 56.8	8	90   855   860   775   770   665   660   665   650   660   755   750   7	1.92 2.88 4.80 5.76 8.64 9.60 9.60 9.60 9.60 9.60 9.60 9.60 9.60	77 ct.  1.94 2.91 3.88 4.85 5.82 6.79 776 8.73 9.70 10.67 11.64 12.61 13.58 14.55 15.52 16.49 17.46 18.43 19.40 24.25 29.10 38.80 48.50 58.20 67.90	98 ct. 1.96 2.94 3.92 4.90 5.89 6.86 7.84 8.82 9.80 10.78 11.76 12.74 13.72 14.72 14.56 16.68 16.68 17.64 18.62 19.40 29.40 49.00 58.80 68.60	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 10.89 11.89 11.89 11.85 15.84 16.83 17.82 18.81 19.90 49.50 59.40 69.30	23. 44. 68. 7. 89. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 25. 30. 40. 40. 60. 70.	4. 6. 8. 100. 122. 144. 166. 18. 220. 224. 266. 288. 300. 322. 344. 366. 388. 40. 400. 100. 120. 120. 120. 120. 120. 120. 1	9. 12. 15. 18. 21. 27. 20. 33. 36. 39. 42. 45. 51. 60. 120. 120. 120. 210.
2 3 4 5 6 6 7 8 9 9 10 11 12 13 14 15 16 17 18 19 20 5 30 40 60 60 60 60 60 60 60 60 60 60 60 60 60	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09 13.02 13.95 14.88 15.81 16.74 17.67 18.60 23.25 27.90 37.20 46.50 55.80 65.10 74.40	1.88 2.88 3.77 4.77 5.6 6.5 7.5.4 9.4 10.3 11.2 12.2 13.1 14.1 15.0 15.9 17.8 23.5 29.2 37.6 47.0 56.4 65.8	8 1.2 2 2.3.4 4.4 5.6 8.8 11.1 12.2 12.2 12.2 17.36 18.8 16.0 23.8	90   85   86   875   76   65   66   66   66   66   66	1.92 2.88 4.80 5.76 8.64 1.52 1.68 8.64 1.52 2.48 4.40 6.32 4.00 8.80 4.00 8.80 4.00 8.80 4.00 8.80 6.32 6.32 6.32 6.32 6.32 6.32 6.32 6.32	77 ct.  1.94 2.91 3.88 4.85 5.82 6.79 7.76 8.73 9.70 10.67 10.67 11.64 12.61 13.58 14.55 15.52 16.49 17.46 18.43 19.40 24.25 29.10 38.80 48.50 67.90 58.20 67.90	98 ct.  1.96 2.94 3.92 4.90 5.83 6.86 7.84 8.52 9.80 10.78 11.76 12.74 11.76 11.76 11.76 11.66 17.64 18.62 19.60 24.50 39.20 49.00 49.00 68.60 68.60 78.40	99 ct.  1.98 2.97 3.66 4.95 6.93 7.92 8.91 9.90 10.89 11.88 12.87 13.86 14.85 15.84 17.82 18.81 19.80 24.75 39.00 49.50 69.30	2.3.4.6.6.7.8.9.10.11.11.13.114.15.16.17.18.19.20.50.60.70.80.	4. 6. 8. 10. 12. 14. 16. 18. 20. 22. 24. 26. 30. 32. 32. 34. 36. 38. 40. 50. 80. 120. 120. 142. 142.	6. 9. 12. 15. 18. 21. 24. 27. 20. 33. 36. 39. 42. 45. 45. 51. 54. 55. 760. 120. 150. 120. 210. 240.
2 3 4 5 6 6 7 8 9 10 11 12 12 13 14 15 16 17 18 19 20 25 3 40 40 5 6 6 7 7 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7	1.86 2.79 3.72 4.65 5.58 6.51 7.44 8.37 9.30 10.23 11.16 12.09 13.09 13.95 14.88 15.81 16.74 17.67 18.60 23.25 27.90 37.20 46.50 55.80	1.88 3.7.6 5.6 6.5 7.5.5 8.4 9.4 10.3 11.2 2.1 3.1 14.1 15.9 16.9 17.6 3.7 6.6 6.5 8.7 5.9 16.9 17.6 18.8 18.8 19.9 19.0 19.0 19.0 19.0 19.0 19.0 19.0	8   L. 2   2   2   2   2   2   2   2   2   2	90 85 1 65 65 66 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1.92 2.88 4.80 5.76 8.64 9.60 9.60 9.60 9.60 9.60 9.60 9.60 9.60	77 ct.  1.94 2.91 3.88 4.85 5.82 6.79 776 8.73 9.70 10.67 11.64 12.61 13.58 14.55 15.52 16.49 17.46 18.43 19.40 24.25 29.10 38.80 48.50 58.20 67.90	98 ct. 1.96 2.94 3.92 4.90 5.89 6.86 7.84 8.82 9.80 10.78 11.76 12.74 13.72 14.72 14.56 16.68 16.68 17.64 18.62 19.40 29.40 49.00 58.80 68.60	99 ct. 1.98 2.97 3.66 4.95 5.94 6.93 7.92 8.91 10.89 11.89 11.89 11.85 15.84 16.83 17.82 18.81 19.90 49.50 59.40 69.30	23. 44. 68. 7. 89. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 25. 30. 40. 40. 60. 70.	4. 6. 8. 100. 122. 144. 166. 18. 220. 224. 266. 288. 300. 322. 344. 366. 388. 40. 400. 100. 120. 120. 120. 120. 120. 120. 1	9. 12. 15. 18. 21. 27. 20. 33. 36. 39. 42. 45. 51. 60. 120. 120. 120. 210.

# Table Showing the Value of Coal and Straw

	প্র	8	32	14	\$2	21	21/2	2‡	Weigh	\$3	31	31	\$4	41	\$5	86
	.00	.00		.02	.01	.01 .02	.01	.01	10			.02	.02	.02	.03	.03
	.00	.01	.01	.03	.02	.03	.04	.04	3	.05	.05	.05	.06	.07	.08	.09
	.01 .01	.01	.02	1 .04	.04	.05	.05	.06	50	.08	.07	.07	.08	.09	.10	.15
	.01	.02	.02	.05 .06	.06	.07	.08	.08	6	09.09	.10	.11	.12	.14	.15	.18
H	.01	.02	.03	.07	.08	.09	.10	.11	80	.12	.13	.14	.16	.18	.20	.24
	.01 .01	.02	.03	.08	.09	.10	.11	.12	100		.15 .16	.16 .18	.18	.20	.23	.27
	.13	.25	.38	.88	1.00	.11 1.13	.13 1.25	1.38	1100	1 50	1.63	1.75	2.00	2.25	2.50	3.00
	.14	.28 .30 .33	.42			1.24 1.35	1.38 1.50	1.51 1.65		1.80		2.10	2.40	$\frac{2.48}{2.70}$	3.00	3.60
-11	.16	.33	.49			1.46 1.58	1,63 1.75	1.79 $1.93$		1.95	2.11 2.28	2.28	2.601	$\frac{2.93}{3.15}$	3.25 3.50	3,90 4.20
	.19	.38	.56	1.31	1.50	1.69	1.88	2.00	150	2.25	2.44	2.63	3.00	3.38	3.75	4.50
- []	.20 .21	.40		1.40		1.91	2.00 2.13	$\frac{2.20}{2.34}$	160 170	12.55	$\frac{2.60}{2.76}$	2.80 2.98	3.40		4.25	4.80 5.10
Н	.23 .24	.45	.68	1.58	1 80	$\frac{2.03}{2.14}$	2.25 2.38	2.48 2.61	180	2.70	2.93 3.09	3.15	3.60	$\frac{4.05}{4.28}$	4.50	5.40
	.261	.53	79	1.84	z.10	2.361	2.63	2.89	2100	DI 3.15	3.41	3.68	4.20	4.73	5.25	6.30
	.28 .29	.55	.83		2.20 2.30	$\frac{2.48}{2.59}$	2.75 2.88	3.03 3.16	2200	3.80	3.58 3.74	3.85			5.50 5.75	
Ш	.30	.60	.90	2.10	2.40	2.70	3.00	3.30	240	<b>)  </b> 3.60	3.90	4.20	4.80	5.40	8.00	
	.31	.63	.98	2.28	2.50 2.60	2.93		3.58	1260	013.90	4.06	4.55	5.20	5.85	6.25	7.80
	.34	.68	1.01	2.88	2.70	8.04 3 15	3.38	8.71	1270	14.05	4.39			6.08 6.30	6.75 7.00	
H	.36 .38	.73	1.09	2.45 2.54	2.90	3.26	3.63	3.99	290	1 4.35	4.71	5.08	5.80	6.53	7.25	8.70
- 11	.38	.75	1.13	2.03	8.00	3 38	3.75	4.19	1300	J14.50	4.88	5.25	6.00	6.75	7.50	9.00
- 11		- 4		A		- 43		. 2.	99							1
	@P	_		Arti						101	1.4	145	14/	0 1	1 17 1	10
	\$7	1	\$8	\$9	10	11		2	Weight	13	14	15	10	-   -	17	18.
	0.0	14	.04 .08	\$9 .05 .09	.05 .10	11		2 .06 .12	Weight	-07	.07	.0	3	08	.09	.09
	.0	7 3	.04 .08 .12 .16	.05 .09 .14	.05 .10 .15	11	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 .06 .12 .18 .24	Weight	.07 ,13 .20	.07 .14 .21	.00	8 .	08 16 24 32	.09 .17 .28 .34	.09 .18 .27
	.0 .0 .1 .1	7 3 14 17 11 14 18	.04 .08 .12 .16	.05 .09 .14	.05 .10 .15 .20	11	106	2 .06 .12 .18 .24 .30	Weight 10 20 30 40 50	.07 .13 .20 .26 .33	.07 .14 .21 .28	.00	8	08 16 24 32 40	.09 .17 .28 .34 .43	.09 .18 .27 .36 .45
	.0	7 14 17 11 14 18 21 25	.04 .08 .12 .16 .20 .24	.05 .09 .14 .18 .23 .27	.05 .10 .15 .20 .25 .30	11	1 1 106 11 17 222 28 33 39	2 .06 .12 .18 .24 .30 .36 .42	Weight  10 20 30 40 50 60 70	.07 .13 .20 .26 .33 .39	.07 .14 .21 .28 .35 .42	.00 .11 .22 .30 .31 .41 .55	8	08 16 24 32 40 48 56	.09 .17 .26 .34 .43 .51	.09 .18 .27 .36 .45 .54
	.0	111111111111111111111111111111111111111	.04 .08 .12 .16 .20 .24 .28 .32	\$9 .05 .09 .14 .18 .23 .27 .32 .36 .41	.05 .10 .15 .20 .25 .30 .35 .40	11	1 1 106 11 177 222 28 33 39 44 50	2 .06 .12 .18 .24 .30 .36 .42 .48	Weight 10 20 30 40 50 60 70 80	.07 ,13 .20 .26 .33 .39 .46 .52	.07 .14 .21 .28 .35	.00 .11 .22 .33 .44 .55	8	08 16 24 32 40 48 56 64 72	.09 .17 .26 .34 .43 .51 .60 .68	.09 .18 .27 .36 .45 .54 .63 .72
	.0 .0 .1 .1 .1 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2	7 14 17 11 14 18 18 12 15 18 18 18 18 18 18 18 18 18 18 18 18 18	.04 .08 .12 .16 .20 .24 .28 .82 .36 .40	\$9 .05 .09 .14 .18 .23 .27 .32 .36 .41 .45	.05 .10 .15 .20 .25 .30 .35 .40 .45	11	1 1 106 11 177 222 28 33 39 44 50	2 .06 .12 .18 .24 .30 .36 .42 .48 .54 .60	Weight  10 20 30 40 50 60 70 80 90	.07 ,13 .20 .26 .33 .39 .46 .52 .59	.07 .14 .21 .28 .35 .42 .49 .56 .63	.00 .11 .22 .33 .44 .55 .66 .64	8	08 16 24 32 40 48 56 64 72 80	.09 .17 .28 .34 .43 .51 .60 .68 .77	.09 .18 .27 .36 .45 .54 .63 .72 .81
	.0 .1 .1 .1 .2 .2 .2 .2 .3 .3	7 14 107 111 14 18 18 18 18 18 18 18 18 18 18 18 18 18	.04 .08 .12 .16 .20 .24 .28 .32 .36 .40 4.00 4.40	\$9 .05 .09 .14 .18 .23 .27 .32 .36 .41 .45 4.50 4.95	.05 .10 .15 .20 .25 .30 .35 .40 .45 .50 5.50	113	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 .08 .12 .18 .24 .30 .36 .42 .48 .54 .60 .00 .60	Weight 10 20 30 40 50 60 70 80 100 1000	.07 .13 .20 .26 .33 .39 .46 .52 .59 .65 6.50 7.15	.07 .14 .21 .28 .35 .42 .49 .56 .63 .70 7.00 7.70	.00 .11 .22 .33 .44 .55 .66 .64 .77 7.55 8.22	8 8 8 8 8 8 8	08 16 24 32 40 48 56 64 72 80 00 80	.09 .17 .28 .34 .43 .51 .60 .68 .77 .85 8.50 9.35	.09 .18 .27 .36 .45 .54 .63 .72 .81 .90 9.00
	3.5	7 14 107 111 14 18 18 18 18 18 18 18 18 18 18 18 18 18	.04 .08 .12 .16 .20 .24 .28 .32 .36 .40 4.00	\$9 .05 .09 .14 .18 .23 .27 .32 .45 .45 .45 .45 .45 .58 .58	.05 .10 .15 .20 .25 .30 .35 .40 .45 .50 .50	10 .0 .1 .1 .2 .2 .3 .3 .4 .5 .6 .6 .6 .6 .6 .6 .6 .6 .6 .6 .6 .6 .6	1 1 106 11 17 22 28 33 39 14 50 60 60 60 60 7	2 .06 .12 .18 .24 .30 .36 .42 .48 .54 .60 .00 .60 .20	Weight  10 20 30 40 50 60 70 80 90 1000	.07 .13 .20 .26 .33 .39 .46 .52 .59 .65	.07 .14 .21 .28 .35 .42 .49 .56 .63 .70	.00 .11 .22 .33 .44 .55 .66 .67 .77 .7.5 8.22 9.00	85530885588.89.5510.	08 16 24 32 40 48 56 64 72 80 00 80 60 1	.09 .17 .28 .34 .43 .51 .60 .68 .77 .85 8.50 9.35 0.20 1.05	.09 .18 .27 .36 .45 .54 .63 .72 .81 .90 9.90 9.90 10.80
	.00 .00 .11 .11 .12 .22 .23 .23 .23 .23 .24 .44 .44	7 14 107 111 14 18 18 18 18 18 18 18 18 18 18 18 18 18	.04 .08 .12 .16 .20 .24 .28 .32 .36 .40 4.00 4.40 5.20 5.60	\$9 .05 .09 .14 .18 .23 .27 .32 .36 .41 .45 .4.50 5.85 6.30	.05 .10 .15 .20 .25 .30 .35 .40 .45 .50 6.00 6.50 7.00	11 .0 .1 .1 .1 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3	1 1 106 111 177 222 288 133 139 144 160 165 165 166 177 177 187 187 187 187 187 187 187 187	2 .06 .12 .18 .24 .30 .36 .42 .48 .54 .60 .00 .60 .20 .80 .40	Weight 10 20 30 40 50 60 70 80 90 1000 1100 11200 11200 11400	.07 .13 .20 .26 .33 .39 .46 .52 .59 .65 6.50 7.15 7.80 8.45 9.10	.07 .14 .21 .28 .35 .42 .49 .56 .63 .70 7.70 8.40 9.10 9.80	.00 .1! .22 .33 .44 .55 .66 .67 7.55 8.22 9.00 9.71	8 5 6 8 8 8 9 8 9 10 11	08 16 24 32 40 48 56 64 72 80 00 80 60 1 40 1 20 1	.09 .17 .28 .34 .43 .51 .60 .68 .77 .85 8.50 9.35 0.20 1.05 1.90	.09 .18 .27 .36 .45 .54 .63 .72 .81 .90 9.90 9.90 10.80 11.70 12.60
	3.5 3.5 4.6 4.6 5.6	7 14 11 14 18 18 18 18 18 18 18 18 18 18 18 18 18	\$8 .04 .08 .12 .16 .20 .24 .28 .36 .40 4.40 4.40 5.20 5.60 6.00 6.40	\$9 .05 .09 .14 .18 .23 .27 .326 .41 .45 .4.50 5.85 6.30 7.20	.05 .10 .15 .20 .25 .30 .40 .45 .50 6.00 6.50 7.50 8.00	13 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	1 1 106 11 17 22 28 13 19 14 160 55 60 60 77 150 80 99 99	2 .06 .12 .18 .24 .30 .36 .42 .48 .54 .60 .00 .60 .20 .80 .40 .00 .60	Weight  10 20 30 40 50 60 70 100 1100 1100 1100 1100 1100 110	.07 .13 .20 .26 .33 .39 .46 .52 .59 .65 6.50 7.15 7.80 9.75 10 40	.07 .14 .21 .28 .35 .42 .49 .56 .63 .70 7.70 8.40 9.80 10.50 11.20	.00 .1! .22 .33 .44 .55 .66 .7; 7.5; 8.22 9.00 9.7; 10.56 11.24	8	08 16 24 32 40 48 56 64 72 80 00 80 60 1 40 1 20 1 80 1	.09 .17 .26 .34 .43 .51 .60 .68 .77 .85 8.50 9.35 0.20 1.05 1.90 2.75 3.60	.09 .18 .27 .36 .45 .54 .63 .72 .81 .90 9.90 9.90 11.70 12.60 13.50 14.40
	.00 .00 .11 .11 .22 .23 .23 .23 .23 .24 .24 .25 .25 .25 .25 .25 .25 .25 .25 .25 .25	7 14 107 111 14 18 18 18 18 18 18 18 18 18 18 18 18 18	\$8 .04 .08 .12 .16 .20 .24 .28 .32 .36 .40 4.40 4.40 4.40 5.20 5.60 6.60 6.40 6.80	\$9 .05 .09 .14 .18 .23 .36 .41 .450 .4.50 .5.40 .5.40 .7.20 .7.65	.05 .10 .15 .20 .25 .30 .45 .45 .50 6.00 6.50 7.00 7.50 8.50	11 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 .08 .12 .18 .24 .30 .36 .42 .48 .54 .60 .00 .60 .20 .40 .20	Weight  10 20 30 40 50 60 70 100 100 11200 11200 11200 11200 11200 11200 11200 11200	.07 ,13 .20 .26 .33 .39 .46 .52 .59 .65 6.50 7.15 7.80 8.45 9.10 9.75	.07 .14 .21 .28 .35 .42 .49 .56 .63 .70 7.70 8.40 9.80 10.50 11.20 11.90	.00 .11 .22 .33 .44 .55 .66 .8 .77 7.55 8.22 9.00 9.71 10.50 11.20 12.70	85 88 88 88 90 10. 11. 12. 13. 14.	08 16 16 24 32 440 448 556 644 772 880 000 11 200 11 80 11	.09 .17 .28 .34 .43 .51 .60 .68 .77 .85 8.50 9.35 0.20 1.05 1.90 2.75 3.60 4.45 5.30	.09 .18 .27 .36 .45 .54 .63 .72 .81 .90 9.90 9.90 11.70 12.60 13.50 14.40 16.20
	3.5 3.5 4.5 4.5 6.6 6.6	7 14 107 114 118 118 119 119 119 119 119 119 119 119	.04 .08 .12 .16 .20 .24 .28 .36 .40 .4.40 .4.40 .4.40 .5.20 .5.60 .6.00 .6.40 .7.20 .7.60	\$9 .05 .09 .14 .18 .23 .27 .32 .36 .41 .45 .4.50 .4.55 .5.40 .7.610 .8.55	.05 .10 .15 .20 .25 .30 .35 .40 .40 .50 6.50 6.50 6.50 7.50 7.50 9.00 9.50	11 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 .06 .12 .18 .24 .30 .36 .42 .48 .54 .60 .00 .60 .20 .80 .40	Weight  10 20 30 40 50 60 70 70 1000 1100 1100 1100 1100 1100	.07 ,13 .20 .26 .33 .39 .46 .52 .59 .65 6.50 7.15 9.75 10 40 111.70 12.35	.07 .14 .21 .28 .35 .42 .49 .56 .63 .70 7.70 8.40 9.80 11.20 11.20 11.90 12.60 13.30	.00 .11 .22 .33 .44 .55 .66 .67 .7.5 8.22 9.00 9.7 10.55 11.20 12.00 12.70 13.56 14.20	8. 8. 9. 10. 11. 12. 12. 12. 12. 12. 12. 12. 12. 12	08 16 16 224 332 440 448 48 556 64 660 1 120 1 1000 1 120 1 1000 1 120 1 1000 1 120 1	.09 .17 .26 .34 .43 .51 .60 .68 .77 .85 0.20 0.20 11.05 0.22.75 3.60 4.45 5.30 6.15	.09 .18 .27 .36 .45 .54 .63 .72 .81 .90 9.00 9.00 9.00 11.70 12.60 113.50 14.40 15.20 16.20 17.10
	.00 .00 .11 .11 .12 .22 .23 .23 .23 .23 .24 .44 .44 .45 .65 .66 .66 .67 .77	7 14 107 111 14 18 18 18 18 18 18 18 18 18 18 18 18 18	.04 .08 .12 .16 .20 .24 .28 .32 .36 .40 4.40 4.40 4.40 6.60 6.80 6.80 6.80 6.80 6.80 6.80 6.8	.05 .09 .14 .18 .23 .27 .32 .36 .41 .45 .4.50 .4.95 .6.30 .7.65 .8.10 .8.55 .9.45 .9.90	10 -055-10 -105-206 -206 -206 -255-30 -355-40 -455-50 -5.50 -6.00 -6.50 -7.00 -7.50 -8.50 -9.50 -9.50 -10.5	11 .0 .1 .1 .2 .3 .4 .5 .6 .6 .6 .6 .7 .7 .7 .7 .8 .8 .8 .8 .8 .8 .8 .8 .8 .8	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 .06 .12 .18 .24 .30 .36 .42 .48 .54 .60 .00 .60 .20 .80 .40 .60 .20 .40 .60 .20	Weight  10 20 40 50 60 70 80 1000 1000 1200 1300 1400 1400 1400 1400 1800 1800 1900 2200	.07 .13 .20 .26 .33 .39 .46 .52 .59 .65 6.50 7.80 8.45 9.75 10.40 11.05 11.70 12.35 11.30	.07 .14 .21 .28 .35 .49 .56 .63 .700 7.70 8.40 9.80 10.50 11.20 11.90 12.60 13.30 14.70 15.40	.00 .11:.22 .33.34 .44 .55:.8.22 .9.00 .77.7.55 .8.22 .9.00 .12.77 .13.50 .14.22 .12.00 .12.77 .13.60 .15.77 .16.56	8. 8. 9. 10. 11. 12. 12. 13. 14. 15. 16. 16. 17. 17. 17. 17. 17. 17. 17. 17. 17. 17	08 16 124 132 140 140 140 140 140 140 140 140 140 140	.09 .17 .26 .34 .43 .51 .60 .68 .77 .85 .85 .85 .9.35 .1.05 .1.05 .1.90 .2.75 .3.60 .4.45 .5.3 .5.3 .5.3 .5.3 .5.3 .5.3 .5.	.09 .18 .27 .36 .45 .54 .63 .72 .81 .90 9.90 9.90 11.70 12.60 113.50 14.40 15.30 16.20 17.10 18.90 19.80
	.00 .00 .11 .11 .12 .22 .23 .23 .23 .23 .24 .44 .44 .45 .65 .66 .66 .67 .77 .78	7 14 111 111 111 111 111 111 111 111 111	.04 .08 .12 .16 .20 .24 .28 .36 .40 4.40 4.40 6.60 6.40 7.20 7.60 8.80 7.20	.05 .09 .14 .18 .23 .27 .36 .41 .45 .45 .5.40 .5.85 .6.30 .6.30 .7.65 .9.90 .9.90	10 -05 -10 -15 -20 -25 -30 -35 -40 -45 -50 6.00 6.50 6.50 8.50 8.50 8.50 10.50 11.00	11 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 .06 .12 .18 .24 .30 .36 .42 .48 .54 .60 .60 .20 .80 .40 .60 .60 .20 .80 .40 .80 .40 .80 .80 .80 .40 .80 .80 .80 .80 .80 .80 .80 .80 .80 .8	Weight  10 20 40 50 60 70 80 1000 11000 11000 11000 11000 11000 11000 12000	.07 .13 .20 .26 .39 .46 .52 .59 .65 6.50 7.15 7.80 9.75 10 40 11.70 12.35 11.70 12.35 13.65 14.95	.07 .14 .21 .28 .35 .42 .49 .56 .63 .70 .70 .77 .70 .8.40 .9.80 11.20 11.90 12.60 11.54 016.10	.00 .11:22 .33:44 .55:66 .60:77 .75:82 9.00 9.77:10.55 111.22 112.71 13.55 14.27:11 16.55 17.22	8. 8. 9. 10. 11. 15. 16. 16. 16. 16. 16. 16. 16. 16. 16. 16	08   1   20   1   20   1   20   1   20   1   20   1   40	.09 .17 .26 .34 .43 .51 .60 .68 .77 .85 .85 .0.20 .1.05 .2.75 .3.60 .2.75 .3.60 .3.51 .5.30 .5.31 .5.30 .5.31 .5.30 .5.31 .5.30 .5.31 .5.31 .5.31 .5.32 .5.33 .5.3	.09 .18 .27 .36 .45 .63 .72 .81 .90 9.90 9.90 11.70 12.60 11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50 11.50
	.00 .00 .11 .11 .12 .22 .23 .23 .23 .23 .23 .23 .23 .23 .2	7 14 107 111 114 118 118 118 118 118 118 118 119 119 119	.04 .08 .12 .16 .20 .24 .28 .36 .40 .4.40 .4.40 .5.20 .6.60 .6.80 .7.20 .8.80 .7.20 .8.80 .9.20 .9.80 .0.00	.05 .09 .14 .18 .23 .36 .41 .45 .4.50 .4.95 5.40 6.30 6.76 8.10 9.90 10.35 11.25	10 .05 .10 .20 .25 .30 .40 .45 .50 6.00 7.00 7.50 8.00 9.00 9.00 9.11 11.60 11.26 11.26 12.56	11 -0 -1 -1 -2 -2 -2 -3 -3 -4 -5 -5 -6 -6 -6 -7 -7 -7 -7 -7 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 .06 .12 .18 .30 .36 .42 .48 .48 .60 .00 .60 .20 .80 .80 .80 .60 .20 .80 .80 .80 .80 .80 .80 .80 .80 .80 .8	Weight  10 20 30 40 50 60 70 1000 1100 1100 1100 1100 1100 11	.07 .13 .20 .26 .33 .39 .46 .52 .65 .65 .7.15 .9.10 .9.10 .9.11 .05 .11.70 .12.35 .13.65 .14.30 .14.95 .13.65 .14.30 .14.65 .15.60 .15.	.07 .14 .21 .28 .35 .42 .49 .56 .63 .70 .70 .70 .8.40 .9.10 .11.90 .11.90 .12.60 .13.30 .14.70 .16.10 .16.10 .16.10 .17.50	.00 .1! .22 .33 .44 .55 .66 .67 .7.55 8.22 9.00 9.77 11.22 12.00 12.77 13.52 17.22 15.77 16.55 17.22 18.77	8. 8. 9. 10. 11. 15. 16. 16. 16. 16. 16. 16. 16. 16. 16. 16	08 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2	.09 .17 .28 .34 .43 .51 .60 .68 .77 .85 .8.50 .9.32 .0.20 .1.05 .1.90 .2.75 .3.30 .5.15 .7.85 .3.90 .5.15 .5.30 .5.15 .5.30 .5.15 .5.30 .50 .50 .50 .50 .50 .50 .50 .50 .50 .5	.09 .18 .27 .36 .45 .45 .45 .63 .72 .81 .90 .9.00 .13.50 .11.70 .13.50 .16.20 .70 .15 .80 .15 .15 .15 .15 .15 .15 .15 .15 .15 .15
	.00 .01 .11 .12 .22 .22 .23 .23 .23 .23 .23 .23 .23 .2	7 14 107 111 14 18 18 18 111 14 18 18 18 18 18 18 18 18 18 18 18 18 18	.04 .08 .12 .26 .20 .24 .28 .36 .40 4.40 4.40 6.40 6.40 7.20 7.60 6.80 6.40 7.20 7.60 8.40 9.60 9.60 9.00 9.00 9.00 9.00 9.00 9.0	.05 .05 .14 .18 .23 .36 .41 .45 .4.50 .5.85 .6.30 .6.30 .6.30 .7.20 .7.65 .8.10 .8.55 .9.90 .11 .12.51 .10.80 .11 .12.51 .10.80 .11 .10.80 .11 .10.80 .11 .10.80 .11 .10.80 .11 .10.80 .11 .10.80 .11 .10.80 .11 .10.80 .11 .10.80 .11 .10.80 .1	10 -05 -10 -15 -20 -25 -30 -35 -40 -45 -50 -50 -60 -65 -7.00 -8.50 -9.00 -9.00 -11.50 -11.50 -12.60 -12.60 -12.60 -13.60	11 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 .08 .12 .24 .30 .36 .42 .48 .54 .60 .00 .20 .80 .40 .60 .20 .80 .40 .60 .20 .80 .40 .60 .60 .60 .60 .60 .60 .60 .60 .60 .6	Weight	.07, 13, 20, 26, 26, 26, 27, 15, 27, 20, 27, 15, 27, 27, 27, 27, 27, 27, 27, 27, 27, 27	.07 .14 .21 .28 .35 .42 .49 .56 .63 .70 7 .00 10.50 11.20 11.20 11.47 11.64 10.16 10	.00 .1! .22 .3 .3 .4 .5 .6 .6 .7 .7 .5 .8 .2 .9 .0 .1 .1 .2 .7 .1 .1 .2 .7 .1 .1 .2 .7 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1	8.8.9.10.11.15.55.12.13.15.55.11.15.15	08	.09 .17 .28 .34 .43 .51 .60 .68 .77 .85 .0.20 .1.05 .1.90 .3.60 .3.360 .2.275 .3.360	.09 .18 .27 .36 .63 .72 .81 .90 .9.00 .11.70 .11.70 .11.50 .11.50 .11.50 .11.60 .20 .70 .21.60 .22.50 .22.50 .24.30
	.00 .01 .11 .12 .22 .22 .23 .23 .23 .23 .23 .23 .23 .2	7 14 107 111 14 18 18 114 18 18 114 18 18 18 18 18 18 18 18 18 18 18 18 18	**************************************	.05 .09 .14 .18 .23 .36 .45 .45 .45 .45 .5.85 .6.30 .8.10 .8.55 .9.45 .9	10 -05 -10 -20 -25 -30 -35 -40 -45 -50 6.00 6.50 6.50 9.50 11.50 11.50 11.50 11.50 11.40 11.40 11.40	11 -0 -1 -1 -1 -2 -2 -3 -3 -3 -3 -3 -3 -3 -3 -3 -3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 .06 .12 .18 .24 .30 .36 .42 .42 .42 .42 .43 .60 .60 .20 .80 .80 .40 .60 .80 .80 .80 .80 .80 .80 .80 .80 .80 .8	Weight 10 20 20 20 20 20 20 20 20 20 20 20 20 20	7.15 7.18 7.19 7.19 7.19 7.15	7.00 .14 .21 .28 .35 .42 .49 .56 .63 .70 7.00 9.80 10.50 10.10 11.20 11.20 11.20 11.20 11.40 11	.00 .1! .22 .33 .34 .45 .66 .77 .7.55 .8.20 .9.7 .10.55 .11.20 .12.7 .13.56 .17.22 .15.77 .19.52 .20.22	8 8 9 9 11 12 15 15 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	08 - 1	.09 .17 .28 .34 .43 .51 .60 .68 .77 .85 .8.50 .20 .1.20 .20 .1.20 .1.20 .1.20 .1.20 .1.20 .1.20 .1.20 .1.20 .1.20 .1.20 .20 .20 .20 .20 .20 .20 .20 .20 .20	.09 .18 .27 .38 .45 .54 .54 .63 .72 .81 .90 .99 .90 .10 .80 .13 .50 .14 .40 .15 .20 .77 .10 .15 .20 .70 .12 .60 .22 .50 .22 .22 .50 .22 .22 .50 .22 .22 .50 .2

# COAL

As reported by the Geological Survey, there are 4,076,206,000,000 tons of coal in the United States within 3,000 feet of the surface. Down to 1919, about 12,134,000,000 tons had been mined. This quantity is equal to about one-half of one per cent of the total deposits as they were 100 years ago, when coal mining began. At this rate the supply would last about one hundred million years.

# Weight of Coal in Bin or Box

A solid cubic foot of anthracite coal weighs about 93 pounds. When broken for use it weighs about 54 pounds. Bituminous coal when broken up for use weighs about 50 pounds.

Rule.—Multiply the length in feet by the height in feet, and again by the breadth in feet, and this result by 54 for anthracite coal, or by 50 for bituminous coal, and the result will equal the number of pounds.

To find the number of tons, divide by 2,000.

# To Find How Many Tons of Coal a Bin Will Hold

Rule.—Multiply the length, breadth and height (all in feet) together, and this product by 56 for anthracite, or by 50 for bituminous coal. Divide by 2,000 and the result will be the number of tons.

Example.—How many tons of bituminous coal will a bin hold which is 12 feet long, 10 feet wide and 6 feet high?

 $12\times10\times6=720$  (cubic feet) $\times50=36,000$  pounds.  $36,000\div2,000=18$  tons.

# To Find the Amount of Charcoal a Bin Will Hold

A bushel of charcoal contains 2,571 cubic inches, and a bushel of bituminous coal 2,688 cubic inches.

Rule.—Multiply the length, breadth and height (all in inches) together, and divide by the number of cubic inches in a bushel.

Example.—How many bushels of charcoal will a bin hold which is 150 inches long, 48 inches wide and 50 inches deep?

 $150 \times 48 \times 50 = 360,000$  cubic inches in bin.  $360,000 \div 2,571 = 140$  bushels.

Anthracite coal, when broken for the market, weighs about 54 pounds to the cubic foot. Bituminous coal weighs about 50 pounds.

# BUYING AND SELLING BY THE TON

To find the cost of any number of pounds at so much per ton.

Rule.—Remove the decimal point three places to the left, and multiply by one-half the price per ton.

Example.—What will 1799 pounds of hay cost at \$10 per ton? 1799 pounds with the point removed equals 1.799, and  $1.799 \times 5$ , one-half the price per ton, is \$8.995, the answer.

### GROCER'S RETAIL RULE

As many articles, such as tea, sugar, coffee, etc., are sold at a given number of pounds per dollar, the following method will show the number of pounds that can be purchased for any number of cents.

Rule.—Multiply the number of pounds to be sold for one dollar by the number of cents' worth desired.

Example.—When sugar is sold at 19 pounds for a dollar, how many pounds can be purchased for 60 cents?

Solution.—19  $\times$  60 = 11.40 or 11 $\frac{2}{5}$  pounds.

### Grocer's Table

	4.10000 2 2 20000	
	12 things make	dozen.
	12 dozen make1	
	12 gross make	great gross.
	20 things make	
	196 pounds of flour make	barrel.
-	200 pounds of beef or pork make1	barrel.
	135 pounds of potatoes or apples make	barrel.
- 1	280 pounds of salt make	barrel.
	400 pounds of molasses make	barrel
- 1	200 pounds of sugar make	l barrel.
1	240 pounds of lime make	barrel.
	100 pounds of fish make	quintal
	100 pounds of nails make	keg.
	50 pounds of soap make	l box.
	20 pounds of raisins make	l box.
	2 pounds of cigars make	l box.
	20 pounds of soda make	l box.
	40 pounds of cheese make	l box.
	25 pounds of tobacco make	l box.
	62 pounds of tea make	box.
	60 pounds of saleratus make	l box.
	25 pounds of chocolate make	l box.
	56 pounds of butter make	l firkin.
	5 pounds of spices make	can.
1	100 pounds of rice make	l tierce.
2	150. 42 cubic inches make	busheL
2	231 cubic inches make	gallon.

# Rapid Methods for Marking Goods

Those who buy largely can best appreciate the value of a quick and rapid method for calculating the per cent of profits desired.

If you wish to calculate the per cent on a single article, the following table will be an excellent method. If you desire to sell an article at any of the following per cents, say the article costs 50 cents, and you wish to make

10 per cent, divide by 10, multiply by 11 = 55. 20 per cent, divide by 10, multiply by 12 = 60. 25 per cent, multiply by 10, divide by 8 = 62. 30 per cent, divide by 10, multiply by 13 = 65.  $33\frac{1}{3}$  per cent, add  $\frac{1}{3}$  of itself = 66.  $33\frac{1}{3}$  per cent, divide by 3, multiply by  $4 = 66\frac{2}{3}$ . 50 per cent, add  $\frac{1}{2}$  of itself = 75.

### How to Mark Goods

In many mercantile houses it is customary to use a private mark, which is placed on the goods to denote their cost and selling price. Various devices are used. A word or phrase containing ten different letters is the most common used. These letters are used instead of figures, thus:

If the cost and selling price of an article were respectively \$165 and \$210, the mark would be:

c r p

a c t

An extra letter called a "Repeater" is used to prevent the repetition of any figure. Instead of writing 255, which according to the above key would be a p p, the repeater z or any other letter not in the key-word may be used, which would make 255 read a p z.

The following are a few of the words that can be used:

Republican. Regulation. Quick Sales. Importance. Charleston. Cumberland. Vanderbilt. Misfortune.

Instead of letters, characters similar to the following are frequently used:

# WEIGHTS AND MEASURES

# WEIGHTS

### Troy

24 grains (gr.) 1 pennyw'ht,—dwt. 20 dwts.....1 ounce,—oz. 3.2 grains, 1 carat\_diamond weight.

By this weight gold, silver, and jewels only are weighed. The ounce and pound in this are the same as in apothecaries' weight.

### Apothecaries'

20	grai	ns.						1	scruple.
									drachm.
- 8	drs.			٠.				1	ounce.
12	OZS.							-1	pound.

# Avoirdupois

16 drams (drs.)	1 ounce,—oz.
25 lbs	i quarter.—qr.*
	100 weight,—cwt.
20 cwts	I ten.

\* Formerly 28 lbs. were allowed to the quarter, but the practice is now nearly out of use excepting in the coal mines in Pennsylvania, the Eastern fish markets, and the U. S. Custom House.

Grains are the same in each of the above weights.

5,760 grains, apothecaries' or troy weight. .................1 lb.

7,000 grains avoirdupois weight 1 lb.
Therefore, 144 lbs. avoir. equal
175 lbs. apoth. or troy.

# Of Liquids

1	gallon	oil	weigh	ıs 9.3	32 1	bs.	avoir.
1	gallon	dist	illed w	ater,	8.3	5 lb	s.
1	gallon	sea	water,	10.3	32 lb	s.	
1	gallon	חדמו	of spiri	ts 9.	081	hs.	

### MISCELLANEOUS

IRON, LEAD ETC.

14 lbs	 	 	 . 1	stone.
21½ stones 8 pigs	 	 ٠.	 . 1	pig.
8 pigs	 	 	 . 1	fother.

### BEEF, PORK, ETC.

			barrel.
196 lbs.	(flour)	1	barrel.
100 lbs.	(fish)	1	quintal

### MEASURES

### Dry

2 pints	ı quart,—qt
8 quarts	l peck,—pk
4 pecks	I bushel,—bu
36 bushels	1 chaldron.
1 United States sta	
chester) bushel	-18½ inches
in diameter o	nd & inches

chester) bushel—18½ inches in diameter, and 8 inches deep—contains 2150.42 cubic inches.

# Liquid or Wine

4 gills	1 quart,—qt. 1 gallon,—gal.
U. S. standard gallon	231 cubic inches. 231 cubic inches.

### Time

	i minute.
60 minutes	i hour.
24 hours	l day.
7 days	1 week.
4 weeks	l lunar month.
28, 29, 30, or \1 cal	endar month.
30 days 1	month (in com-
puting inter	rest).
52 weeks and 1 d	ay
52 weeks and 1 da 12 calendar months	year.
365 days, 5 hours, 4	8 minutes, and
49 seconds	1 solar year.

# Circular

60 seconds 60 minutes										
30 degrees.									1	l sign.
4 quadrants 360 degrees.	•	•	•	•	•	:	}	1	ĺ	circle

A convenient method of finding the difference in time between two places, is to notice their distance apart, in degrees or longitude, and allow 4 minutes to each degree, based on the following

### CALCULATION:

CALCULATION.
1440 minutes 1 day. or revolution of the earth.
or revolution of the earth.
1 revolution of the earth is
360 degrees; therefore,
1 degree 4 minutes

# MEASURES

# Long

# DISTANCE

3 barleycorns 1	inch,—in.
12 in 1	foot,—ft.
3 ft 1	yard,—yd.
5½ yds 1	rod,—rd.
40 rds 1	furlong,—fur.
8 fur 1	. mile.

### CLOTH

21 inches					1	nail.
4 nails					1	quarter.
4 quarters					1	yard.

### MISCELLANEOUS

3 inches	1 span. 1 cubit. 1 Bible cubit. 1 military pace.
3 feet	1 common pace.

# Square

144 sq. ins	1 sq. foot.
9 sq. ft	1 sq. yard.
301 sq. yds	1 sq. rod.
40 sq. rods	
4 roods	

# Surveyors'

7.92 inches		
4 rode	1	chain
10 square chains . 1 160 square rods	1	acre.
640 acres	1	square mile

# Cubic

1728 cubic inches 27 cubic feet 128 cubic feet 40 cubic feet 2150.42 cubic in	1 cubic yard. 1 cord (wood) 1 ton (shipping) 1 standard bu.
231 cubic in	

1 cubic ft., four-fifths of a bushel.

To find the number of bushels in a bin of any dimensions find the number of cubic feet by multiplying the three dimensions of the bin in feet; deduct one-fifth and the sesult is the number of bushels.

# PAPER

# The Sizes in Inches

# Flat Writing-Paper

Flat Letter10 x 1¢
Flat Cap
Double Flat Letter16 x 20
Flat Foolscap
Crown
Folio Post
Demy
Medium
Check Folio
Bank Folio
Double Cap
Royal
Super Royal
Imperial

Of the different sizes there are also several different weights of each size, as Demy 20, 22, 24, 26, and 28 lbs. per ream.

Stationers usually rule, cut and fold the sizes required to make the various styles of letter and note papers—a flat sheet making one, two or four sheets of letter or note paper.

# Ledger Papers

Flat Cap .		 	 	 	.14	X	17
Crown							
Folio							
Demy							
Medium .							
Royal							
Super Roy							
Imperial.							
Elephant		 	 	 	.20	- 4	40

# Book Papers

The usual sizes of these, from the different American and English manufacturers, differ but little from the above, except to fill special orders.

# Paper Counts

24 sheets.											1	quire.
101 quires					۰						1	token.
20 quires.	۰	۰				٠			٠	•	1	ream.
2 reams.	٠	٠		٠	۰	0		٠		٠	1	bundle
5 hundle	g										- 7	pare

# Units of Anything

12	pieces	1	dozen.
12	dozen	1	gross.
12	gross	1	great gross.
20	units.	1	score.

# THE METRIC SYSTEM

# Measures of Length

Lietric Denominations and Values.	Equivalents in Denominations in Use.
Myriameter = 10,000 meter Kilometer = 1,000 meter Hectometer = 100 meter Dekameter = 10 meter Meter = 1 meter Decimeter = .1 of a me Centimeter = .01 of a m Millimeter = .001 of a m	rs = 0.62.137 m. or 3,280 feet 10 in. rs = 328 feet and 1 inch. rs = 393.7 inches. r = 39.37 inches. eter = 3,937 inches. eter = 0.3937 inch.

# Measures of Surface

1 square meter = 1,550 square inches.

```
Metric Denominations and Values. Equivalents in Denominations in Use.

Hectare = 10,000 square meters = 2.471 acres.

Are = 100 square meters = 119.6 square yards.
```

# Measures of Capacity

Metric Den	ominations and Values.	Equivalents in Den	ominations in Use.
NAMES. 1	No.Liters. Cubic Measur	e. Dry Measure.	Wine Measure.
	= 1,000 = 1 cubic meter	= 1.308 cubic yards	=264.17 galls.
Hectoliter :			= 26.417 galls. = 2 6417 galls.
	= 1 = 1 c. decimeter	= 0.908 quarts.	= 1.0567 quarts
Deciliter :		r = 6.1022 cubic inch. $r = 0.6102$ cubic inch.	
Milliliter :	= .001 = 1  c. centimete	r = 0.061 cubic inch.	= 0.27 fluid dr.

# Weights

			AA G	JR.	uus		
Me	<b>tric De</b> nominations a	ınd	Values.	1	Equivalents in <b>D</b>	enc	ominations in Use
	Names.	N	o.Grams.	tit	eight of what quay of water at manum density.		
	Millier or tonneau Quintal Myriagram Kilogram or kilo Hectogram Dekagram Gram Decigram Centigram		100,000 10,000 1,000 100 100 10 1	11 11 11 11 11 11	1 cubic meter 1 hectoliter 10 liters 1 liter 1 deciliter 10 c. centimet. 1 c. centimet. .1 c. centimet.	11 11 11 11 11 11	2204.6 pounds. 220.46 pounds. 22.046 pounds. 2,2046 pounds. 3.5274 ounces. 0.3527 ounces. 15.432 grains. 1.5432 grains. 0.1543 grain.
	Millieram	-	100	=	1 c millimet	=	0.0154 grain.

# Table for Finding the Contents of Square Tanks

A	tank five	feet by	five fee	t holds		 	6	barrel
A	tank six	feet by	six feet	holds		 	81	44
A	tank sev	en feet b	v seven	feet hol	ds		114	66
A	tank eigh	at feet b	v eight	feet hold	is		15%	44
A	tank nin	e feet by	nine fe	et holds			194	4.6
A	tank ten	feet hy	ten feet	holds			234	40

The above table is for one foot of depth only.

To find the contents of a trough, measure its depth in feet and multiply it by the contents of one foot in depth.

# A Table for Circular Tanks One Foot in Depth

Five feet in diameter holds $4\frac{1}{2}$ ba	arrels.
Six feet in diameter holds	44
Seven feet in diameter holds	4.4
Eight feet in diameter holds	64
Nine feet in diameter holds	4.6
Ten feet in diameter holds 194	54

N B.—To find the contents of a tank by the table, multiply the contents of one foot in depth by the number of feet deep.

### To Measure Wells or Cisterns

Square the diameter in inches, multiply by the decimal .7854, and the product by the depth of the well or cistern in inches. The result will be the full capacity of the well in cubic inches. If the actual quantity of water be sought, multiply by the depth of water in inches, and in either case divide by 231 for the number of gallons.

# Circular Cisterns, One Foot in Depth, Computed

٤

DIAMETER	CONTENTS	DIAMETER	CONTENTS
IN INCHES	IN GALLONS	IN INCHES	1N GALLONS
12	5.875	18	13.218
15	9.18	20	16.32
16	10.44	21	18

For any greater depth than one foot, multiply by the number of feet and fractions of a foot. As the areas of circles, and consequently the capacities of circular cisterns of equal depth, vary as the squares of their diameters, it is unnecessary to multiply calculations. For instance, should it be required to find the contents of a circular cistern of 2 feet in diameter, say as the square of 1: to the square of 2:5.875, that is, as 1:4::5.875, and  $5.875 \times 4 = 23.5 =$  the contents of such cistern. This formula will apply to any diameter; for 3 feet, multiply by 9; for 4 feet, multiply by 16, etc.; for 5, by 25.

# Cisterns and Casks

To Measure the Contents of Cisterns.—To ascertain the contents of circular cisterns, multiply the square of the diameter in feet by the depth in feet, and that product by  $\frac{37.3}{4000}$  for the contents in hogsheads, or by  $\frac{37.3}{2000}$  for barrels, by  $\frac{47}{8}$  for the contents in gallons.

Square Cisterns.—Multiply the width in feet by the length in feet, and that by the depth in feet, and that again by  $\frac{19}{100}$  for hogsheads, or  $\frac{19}{100}$  for barrels, or  $7\frac{100}{100}$  for gallons.

Another and simpler method is to multiply together the length, width, and depth, in inches, and divide by 231, which will give the contents in gallons.

Cask Gauging.—To measure the contents of cylindrical vessels multiply the square of the diameter in inches by 34, and that by the height in inches, and point off four figures. The result will be the contents or capacity, in wine gallons and decimals of a gallon. For beer gallons multiply by 28 instead of 34. If the cask be only partially filled, multiply by the height of the liquid instead of the height of the cask, to ascertain actual contents. In ascertaining the diameter, measure the diameter at the bung and at the head, add together, and divide by 2 for the mean diameter.

# TANK AND BARREL MEASUREMENT

# To Find the Contents of a Round Tank

Multiply the square of the diameter in feet by the depth in feet, and multiply this result by 6, and you have the approximate contents of the tank in gallons. (For exact results multiply the product by  $5\frac{7}{8}$ , instead of 6.)

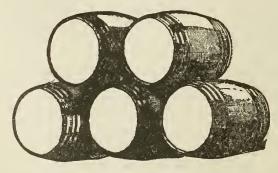
Example.—How many gallons will a tank hold 7 feet in diameter and 5 feet deep?

Solution.  $-7 \times 7 \times 5 = 245$ .

 $245 \times 6 = 1,470$  gallons.

Note.—If the tank is larger at the bottom than at the top, find the average diameter by measuring the middle part of the tank halfway between the top and bottom.

# To Find the Capacity of Barrels



Rule.—Add the head and bung diameters in inches, and divide by two for the mean diameter. Then multiply the average diameter by itself in inches, and again by the height in inches, then multiply by 8, cut off the right-hand figure, and you have the number of cubic inches. Divide by 2771/4 and you have the number of gallons.

To find the bushels divide by 2150.4.

Example.—How many gallons in a barrel, whose middle or bung diameter is 20 inches, and end diameter is 16 inches, and 30 inches in height?

Solution.—20+16÷2=18 average diameter

 $18 \times 18 \times 30 \times 8 = 7776$ .

7776÷2771/4=28 52-1109 gallons.

Note-A barrel is estimated usually at 31 1/2 gallons. The hogshead at 63 gallons.

# To Find the Contents of a Watering-Trough.

Rule.—Multiply the height in feet by the length in feet, and the product by the width in feet, and divide the result by 4, and you will have the contents in barrels of 31½ gallons each.

Example.—What are the contents of a watering-trough 10 feet long, 6 feet wide, and 4 feet deep?

Solution. $-4 \times 10 \times 6 = 240 \div 4 = 60$  barrels.

Note-For exact results multiply the length in inches by the height in inches, by the width in inches, and divide the result by 231, and you will have the contents in gallons.

# Rule for Measuring Hay.

Good timothy hay in the mow when thoroughly settled takes about 350 cu. ft. to make a ton. Partly settled or new hay takes from 400 to 500 cu. ft., while common meadow hay takes nearly twice the number of cu. ft. to a ton. Hay stacked takes probably 100 cu. ft, more than hay in the mow.

Example.—How many tons in a mow 25 ft. long 20 ft. wide

and 14 ft. high?

 $25 \times 20 \times 14 = 7000$  cu. ft.  $7000 \div 350 = 20$  tons.

# How to Estimate the Number of Tons in a Stack.

Rule.—Multiply the length in feet by the width in feet, and this by me-half the height, and divide the product by 300.

Example: How many tons of hay in a stack 20 feet long, 12

feet high, and 15 feet wide?

 $20\times6\times15\div300=6$  tons. Solution:

# How to Estimate the Contents of a Round Stack.

Rule .- Multiply the square of the distance around the stack in yards by 4 times the height in yards, and point off two places from the right, and this will be the number of cubic yards in the stack, which divided by 20 will equal the number of tons.

Example: How many tons of hay in a stack, distance around

the bulge, 25 yards, and height, 9 yards?

 $25 \times 25 = 625$ , then  $625 \times 36 = 22,500$ , pointing off two places makes 225, then 225÷20=111/4 tons. Ans.

\*Some authorities allow only 350 cubic feet for a ton of timothy hay when thoroughly settled. Others allow 343 to 420. For millet allow only 216 cubic feet to a ton. The fact is, hay in stack or mow can only be approximately ascertained by measurement.

# BUILDERS' TABLES

# BUILDERS' ESTIMATING TABLES

Quantity of material in every four lineal feet of exterior wall in a balloon frame building, height of wall being given:

Length of Studs.	Size of Sills.	Size of Studs, Braces, etc.	of Rough	Quantity of inch Boarding	in	Tar Paper in sup. feet.
8 10 12 14 16 18 20 22 24	6 x 6 6 x 8 6 x 10 6 x 10 8 x 10 8 x 10 8 x 12 9 x 12 10 x 12	2 x 4 Studs 4 x 4 Braces 4 x 4 Plates 1 x 6 Ribbons Studs 16 inches from centers	42 52 62 69 82 87 98 109 119	36 44 53 62 71 80 88 97 106	40 50 60 70 80 90 100 110 120	74 80 96 112 128 144 160 176 192
18 20 22 24 26 28 30	10 x 10 10 x 12 10 x 12 12 x 12 10 x 14 10 x 14 12 x 14	2 x 6 Studs 6 x 6 Braces 4 x 6 Plates 1 x 6 Ribbons Studs 16-inch centers	122 137 145 162 169 176 198	80 88 97 106 114 123 132	90 100 110 120 130 140 150	144 160 176 192 208 224 240

Amount of lumber in rafters, collar-piece and boarding, and number of shingles to four lineal feet of roof, measured from eave to eave over ridge. Rafters 16-inch centers:

Width of House, Feet.	Size of Rafters.	Size of Collar- piece.	Quantity of Lumber in Rafter and Collar- piece.	Quantity of Boarding. Feet.	No. of Shingles.
14	2 x 4	2 x 4	39	91	560
16	2 x 4	2 x 4	45	70 79	640 720
14 16 18 20 22 24 20 22 24 26 28 30	$\begin{array}{c} 2 \times 4 \\ 2 \times 4 \end{array}$	2 x 4 2 x 4	50 56	88	800
22	2 x 4	2 x 4	56 62	88 97	880
24	2 x 4	2 x 4	67 84 92	106	960
20	2 x 6	2 x 6	84	88	800
22	2 x 6	2 x 6	92	97	880
24	2 x 6	2 x 6	101	106	960
26	2 x 6	2 x 6	109	115	1040
28	2 x 6	2 x 6	117	124	1120
30	2 x 6	2 x 6	126	133	1200

# Comparative Strength of Timber and Cast Iron

Table showing the transverse strength of timber and of cast iron one foot long and one inch square.

Material.	Breaking Weight, lbs.	Weight Borne with Safety, lbs.
Ash, seasoned. Chestnut, seasoned. Hickory, seasoned. White Oak, seasoned. White Pine, seasoned.	. 170 270 240	105 115 200 196
Yellow Pine, seasoned Iron (cast)	150	100 4,000

# BUILDERS' TABLE OF BRICK REQUIRED

(Allowing 7 Brick to Superficial Square Foot.)

p		Numbe	r of Brick	ks require	d in a	
Square feet of wall surface.	Wall 4 inches thick.	Wall	277 11	Wall	Wall 20 inches thick.	tinek
1 2 3 4 5 6 7 7 8 9 10 20 30 40 50 60 70 80 90 100 200 300 400 500 600	7 15 23 30 38 45 53 60 68 75 150 225 300 525 600 675 750 1,500 2,250 3,750 4,500	15 30 45 60 75 90 105 120 135 150 300 450 600 750 900 1,050 1,200 1,350 1,200 1,500 3,000 4,500 3,000 4,500 9,000	23 45 68 90 113 135 158 180 203 225 450 675 1,350 2,025 2,025 2,025 2,025 2,025 2,025 1,575 1,800 2,025 2,025 2,025 1,125 1,250 1,125 1,250 1,135 1,250 1,250 1,135 1,250 1,	30 60 90 120 150 180 210 240 270 300 606 900 1,200 2,100 2,400 2,700 3,000 6,000 9,000 12,000 15,000	38 75 113 150 188 225 263 300 338 375 750 1,125 1,500 1,875 2,250 3,375 7,500 11,250 15,000	27,000
700 800 900 1,000	5,250 6,000 6,750 7,500	10,500 12,000 13,500 15,000	15,750 18,000 20,250	24,000	30,000	36,000

# Facts for Builders

100 square feet of surface, 4 inches to weather, requires about 1,000 shingles.

1,000 shingles require of shingle nails about 5 pounds.

70 yards of surface will require about 1,000 laths.

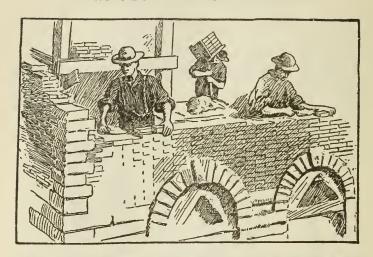
100 square yards of plaster will require 16 bu. sand, 8 bu. lime, 1 bu. hair.

1,000 laths will require of lath nails 11 pounds.

100 cubic feet of wall will require 1 cord stone, 3 bu. lime and cubic yard of sand.

One-fifth more siding is required than surface measure, to allow for lap

# FACTS FOR BUILDERS



# FACTS CONCERNING STONEWORK, BRICKWORK AND PLASTERING

# Stonework

- 1. A cord of stone, three bushels of lime and a cubic yard of sand will make 100 cubic feet of wall.
  - 2. One cubic foot of stonework weighs from 130 to 175 pounds.

### Brickwork

- 3. Five courses of brick will make one foot in height on a chimney.
- 4. One cubic foot of brickwork, with common mortar, weighs from 100 to 110 pounds.
  - 5. A cask of lime will make mortar sufficient for 1,000 bricks.

# For Plastering

- 6. Six bushels of lime, 40 cubic feet of sand\* and 1½ bushels of hair will plaster 100 square yards with two coats of mortar.
  - \*N. B. There are about 11 cubic feet in a bushel.

# Common Brick in a Wall or Building

A brick is 8 inches long, 4 inches wide and 2 inches thick, and contains 64 cubic inches. Twenty-seven brick make one cubic foot of wall, without mortar, and it takes from 20 to 22 bricks, according to the amount of mortar used, to make a cubic foot of wall with mortar.

Rule.—Multiply the length of the wall in feet by the height in feet, and that by its thickness in feet, and then multiply that result by 20, and the product will be the number of bricks in the wall.

N. B.—For a wall 8 inches thick multiply the length in feet by the height in feet and that result by 15, and the product will equal the number of bricks. When doors and windows occur in the wall multiply their neight, width and thickness together and deduct the amount from the solid contents of the wall before multiplying by 20 or 15, as the case may be.

# Short Method of Estimating Stonework

Rule.—Multiply the length in feet by the height in feet, and that by the thickness in feet, and divide this result by 22 and the quotient will be the number of perches of stone in the wall.

N. B.—In a perch of stone there are 24% cubic feet, but 2% cubic feet are generally allowed for the mortar and filling.

# How to Find the Number of Cord Stone to Build Cellar and Barn Walls

Rule.—Multiply the length, height and thickness together in feet, and divide the result by 100.

N. B.—There are 128 cubic feet in a cord, but the mortar and sand make it necessary to use but 100 cubic feet of stone.

# The Number of Bricks Required for a Building

The average brick is eight inches long, four inches wide and two inches thick, or  $64 \, (8 \times 4 \times 2)$  cubic inches; 1,728 cubic inches make one cubic foot, and 27 bricks make 1,728  $(64 \times 27)$  cubic inches. In laying bricks  $\frac{1}{6}$  is allowed for mortar, or  $4\frac{1}{2}$  out of every 27, leaving  $22\frac{1}{2}$  actual bricks for each cubic foot. Therefore, multiply the dimensions—length, height and thickness—in feet and fraction of a foot, of the several brick walls, and the product by  $22\frac{1}{2}$  and the result will be the number of bricks required. Multiply by 20 instead of  $22\frac{1}{2}$  if the bricks are larger than the average above given. Allowance should be made for chimneys, projections for mantels and the like on the same basis.

# Number of Perches of Stone Required for a Wall or Cellar

The perch of stone is now computed at a perch, or 16.5 feet in length by 1.5 feet in width and 1 foot in height, or 24.75 (16.5×1.5×1) cubic feet. Of this amount one-ninth, 2.75 cubic feet, is allowed for mortar and filling. Multiply the three dimensions of the wall or walls in feet—width, height and thickness—and divide by 22 (24.75—2.75) if the needed quantity of stone is the subject of inquiry, or by 24.75 if it be sought to ascertain the amount of masonry in the wall or cellar.



# BUYING AND SELLING LUMBER

To find the cost of any number of feet of lumber at so much per thousand feet.

Rule.—Remove the decimal point three places to the left in any number of feet, and multiply by the price of one thousand feet.

Example.—What will 859 feet of lumber cost at \$12 per thousand feet? Remove the point three places to the left in 859=.859, and .859×\$12=\$10.308, the answer.

# The Number of Cubic Feet in a Round Log of Uniform Diameter

Square the diameter, in inches, multiply by .7854, and multiply this product by the length in feet, divide by 144, and the quotient is the number of cubic feet.

# Estimate of the Number of Cubic Feet in the Trunk of a Standing Tree

Find the circumference in inches, divide by 3.1416, square the quotient, multiply by the length in feet, divide by 144; deduct about one-tenth for thickness of bark, and the result will be, approximately, the number of cubic feet.

LUMBER 403

# FACTS FOR LUMBERMEN



# The Number of Feet, Board Measure, in a Log of Unequal Diameters

Square the smallest diameter in inches, multiply by .7854, and the product by the length of the log in feet, divide by 12, and the quotient will be the number of feet of board measure, approximately.

# The Number of Feet, Board Measure, in a Lot of Boards, Planks, Flooring, Scantling, Joists, Sills or Beams

The foot of board measure is a superficial or square foot, one inch thick. Multiply the product of the width and thickness of each board, plank or other article, in inches, by the length in feet and fractions of a foot, divide by 12, and the quotient will be the number of feet of board measure. In flooring, allowance must be made for rabbeting, the proportion varying with the depth of the groove and the width of the boards.

# The Number of Square Yards in a Floor or Wall

Multiply the length and width of the floor, or height and width of the wall, in feet and fractions of a foot, divide by nine, and the quotient is the number of square yards.

Note-For Cubical Contents of Round Timber see page 354.

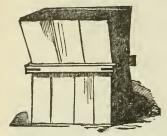
# BOARD AND PLANK MEASUREMENT-AT SIGHT

This Table gives the Sq. Ft. and In. in Board from 6 to 25 in. wid, and from 8 to 36 ft. long
If a board be longer than 36 ft., units two numbers. Thus, if a Board is 40 ft. long and
16 in. wide, add 30 and 10 and you have 53 ft. 4 in. For 2-in Plank double the product.

et og.	6 in W	7 in W	8 in W	9 in W	10in W	Waill	12inW	13 in W	14 in W	Waist
Feet	ft. in.	ft.in.	ft. in.	ft. in.	ft. in	ft. in.	ft in	ft. in.	ft. in	ft. in.
8	4 0	4 8	5 4	60	6 8	7 4	8 0	8 8	9 4	10 0
10	4 6 5 0	5 8 5 10	6 0	6 9	7 6	9 2	9 0	9 9	10 6	11 8 12 6
11	66	6 5	7 4	8 3	9 2	10 1	11 0	11 11	12 10	12 9
12 13	60	7 0 7	8 0	9 0	10 0 10 10	11 0 11 11	12 0	18 0 14 1	14 0 15 2	16 0 16 3
14	7 0	8 2	94	10 6	11 8	12 10	14 0	15 2	16 4	17 6
15	76	8 9	10 0	11 3	12 6	18 9	15 0	16 3	17 6	18 9
16 17	8 0 8 6	9 4 9 11	10 8	12 0 12 9	13 4 14 2	14 8 15 7	16 0 17 0	17 4 18 5	18 8 19 10	20 0 21 <b>3</b>
18	90	10 6	12 0	13 6	15 0	16 6	18 0	19 6	21 0	22 6
19 20	9 6	11 1	12 8 13 4	14 3 15 0	15 10 16 8	17 5 18 4	19 0 20 0	20 7	22 <b>2</b> 23 <b>4</b>	23 9 25 0
21	10 6	12 8	14 0	15 9	17 6	19 3	21 0	22 9	24 6	26 8
22	11 0	12 10	14 8	16 6	18 4	20 2	22 0	23 10	25 8	27 6
23 24	11 6 12 0	13 5 14 0	15 4 16 0	17 8 18 0	19 2 20 0	21 1 22 0	23 0 24 0	24 11 26 0	26 10 28 0	28 9 30 0
25	12 6	14 7	16 8	18 9	20 10	22 11	25 0	27 1	29 2	81 3
26 27	13 0 13 6	15 2 15 9	17 4 18 0	19 6	21 8 22 6	23 10 24 9	26 0 27 0	28 2 29 8	30 4	
28	14 0	16 4	18 8	21 0	23 4	25 8	28 0	30 4	32 8	33 9 35 0
29	14 6	16 11	19 4	21 9	24 2	26 7	29 ()	31 5	83 10	36 8
30 81	15 0 15 6	17 6 18 1	20 0	22 6 23 8	25 0 25 10	27 6 28 5	30 0 31 0	83 7	35 0 36 2	87 6 88 9
32	16 0	18 8	21 4	24 0	26 8	29 4	32 0	34 8	37 4	40 0
88	16 6	19 8	22 0	24 9	27 6	30 3	83 0	85 9	88 6	41 3
85	17 0 17 6	19 10 20 5	22 8 23 4	25 6 26 3	23 4 29 2	31 2 32 1	34 0 35 0	86 10	89 8 40 10	42 6 43 9
86	18 0	21 0	-24 0	27 0	30 0	83 0	86 0	39 0	42 0	45 0

No. of Lot, Lot,		DOAD	DTA	DIEN	EAST	DEWI	ENT-C	ANIMITATION	77	
Feet Long.	16inW	17inW	18inW	19inW	20in W	21inW	22 in W	23 in W	24inW	125 in W
9 5	2 1		- ·	-		A				
1	ft. in.	ft.in.	ft. in.	ft. in.	ft. in.	ft. in.				
	10.0	11 4	70.0	70 0	70.4	24.0				
8	10 8	11 4	12 0	12 8	13 4	14 0	14 8	15 4	16 0	16 8
9	12 0	12 9	13 6	14 8	15 0	15 9	16 6	17 8	18 0	18 9
10	13 4	14 2	15 0	16 10	16 8	17 6	18 4	19 2	20 0	20 10
11	14 8	15 7 17 0	16 6	17 6 19 0	18 4	19 3	20 2	21 1	22 0	22 11
12 13	16 0 17 4	17 0 13 5	18 0 19 6		20 0 21 8	21 0 22 9	22 0	23 0	24 0	25 0
14	18 8	19 10	19 6 21 0	20 7 22 2	21 8 23 4	22 9 24 6	23 10	24 11	26 0	27 1
15	20 0	21 3	22 6	23 9	25 0	26 3	25 8 27 6	26 10 28 9	28 0	29 <b>2</b> 31 <b>3</b>
16	21 4	22 8	24 0	25 4	26 8	28 0	27 6 29 4	28 9	30 0 32 0	33 4
17	22 8	24 1	25 6	26 11	28 4	29 9	31 2	32 7	34 0	35 6
18	24 0	25 6	27 0	28 6	30 0	31 6	33 0	34 6	36 0	37 6
19	25 4	26 11	28 6	30 1	31 8	33 3	34 10	36 5	88 0	39 7
20	26 8	28 4	30 0	31 8	83 4	85 0	36 8	88 4	40 0	41 8
21	28 0	29 9	31 6	33 3	35 0	86 9	38 6	40 3	42 0	43 9
22	29 4	31 2	33 0	34 10	36 8	38 6	40 4	42 2	44 0	45 10
23	30 8	32 7	34 6	36 6	38 4	40 3	42 2	44 1	46 0	47 11
24	32 0	34 0	36 0	38 0	40 0	42 0	44 0	46 0	48 0	60 O
25	33 4	35 5	37 6	39 7	41 8	43 9	45 10	47 11	50 0	52 1
26	34 8	36 10	39 0	41 2	43 4	45 6	47 8	49 10	52 0	54 2
27	36 0	38 3	40 6	42 9	45 0	47 8	49 6	51 9	54 0	56 3
28	37 4	39 8	42 0	44 4	46 8	49 0	51 4	53 8	56 0	58 4
29	888	41 1	43 6	45 11	48 4	50 9	53 2	55 7	68 0	60 5
30	40 0	42 6	450	47 6	50 0	51 6	55 0	57 6	60 0	62 6

# Number of Shingles Required for a Roof



Rule.—Multiply the length of the ridge pole by twice the length of one rafter, and, if the shingles are to be exposed  $4\frac{1}{2}$  inches to the weather, multiply by 8, and if exposed 5 inches to the weather, multiply by  $7\frac{1}{5}$ , and you have the number of shingles.

Note.—Shingles are 16 inches long, and average about 4 inches wide. They are put up in bundles of 250 each.

One bundle 16-inch shingles will cover 30 square feet.

One bundle 18-inch shingles will cover 33 square feet.

When laid 5 inches to the weather, 5 pounds 4-penny or 32 pounds 3-penny nails will lay 1,000 shingles.

# Slating

The thickness of slates ranges from  $\frac{3}{16}$  to  $\frac{5}{16}$  of an inch, and their weight varies from 2.6 to 4.5 lbs. per square foot.

The lap of slates varies from 2 to 4 inches. The standard is assumed to be 3 inches.

Rule for computing the number of slates of a given size required per square.—Subtract 3 inches from the length of the slate, multiply the remainder by the width and divide by 2. Divide 14.400 by the number so found, and the result will be the number of slates required.

# Dimensions of Slates and Numbers Required to a Square

 $12\times6$  requires 533 to the square;  $14\times9$  requires 291;  $18\times9$  requires 213;  $24\times13$  requires 105.

# Number of Laths for a Room

Laths are 4 feet long and 1½ inches wide, and 16 laths are generally estimated to the square yard.

Rule.—Find the number of square yards in the room and multiply by 16, and the result will equal the number of laths necessary to cover the room.

To find the number of square yards in a ceiling or wall, multiply the length by the width or height (in feet) and divide the product by 9; the result will be the square yards.

# FEDERAL TRADE COMMISSION. As a "First Aid to Business"

# PLANS TO HELP SMALL DEALERS.

Purpose and Powers of the Commission.—The Federal Trade Commission, created by Act of Congress approved September 26, 1914, is composed of five commissioners appointed by the President. The principal office of the Commission is in Washington, but it may meet and exercise all its powers at any other place in the United States.

To Prevent Unfair Competition.—The act creating the Commission declares unfair methods of competition to be unlawful, and empowers and directs the Commission to prevent persons, partnerships, or corporations, except banks, and common carriers subject to the acts to regulate commerce, from using unfair methods of competition in commerce.

Proceedings of the Commission.—When complaint is made of unfair competition the Commission issues a formal complaint, if it considers public interest demands it, citing the concern against which complaint is made to appear within thirty days and show why an order should not be issued instructing it to desist from unfair practices. If the defendant fights the case a hearing is held. The Commission's decision then is subject to review by the Circuit Court of Appeals, which passes on points of law alone. An appeal may be had from the Circuit Court to the United States Supreme Court.

Purpose of the Commission Misunderstood.—Because of its authority to investigate claims of unfair methods of competition, an erroneous impression has become prevalent among business men that it is the purpose of the Commission to pry into the affairs of American manufacturers and dealers and dictate to them the methods they should pursue in conducting their business.

To counteract such impression the Commission has issued an official statement declaring that the Commission has no intention and no desire to use compulsory methods in its "helpful activities," but that it does hope to reach the desired end by encouraging improvements in accounting practice, by indorsing standard systems of bookkeeping and cost accounting, and by assisting in devising standard systems, either at the request of individual merchants and manufacturers, or through the association that represents the industry.

Plans for Helpful Activities.—With this purpose in view, the Vice-Chairman of the Commission, Mr. Edward N. Hurley, on account of his practical business experience, was requested by the Commission to suggest plans for "helpful activities to strengthen American business."

To Aid Small Dealers.—One of the great purposes of the Commission, in accordance with Mr. Hurley's plans, will be to close the gap between the big and successful business enterprises and the small struggling business men of the country, by lending a helping hand to the weak, instead of trying to impede the progress of the strong.

To Point the Way to Success.—It is not contemplated the Commission shall pry into the private affairs of the small business man. The purpose is to offer advice, based on the experience of successful business men, to those who ask it—to point the way to success to those who wish to profit by the success of others.

Plans for Constructive Help.—Among the several suggested methods by which the Federal Trade Commission proposes to be of constructive help to American business, there are two of particular importance. One of these is to aid the business men of the country in obtaining additional credits to which their business operations may entitle them. The second is to aid in establishing a standard system of bookkeeping and cost accounting. The two are interdependent.

To Help Credit at the Banks.—The Commission believes that the small manufacturer, the country storekeeper and the retail merchant as a rule do not get all the bank credits that they ought to receive, owing to the fact that they are unable to present balance sheets in accordance with good business practice.

Magic of a Reliable Balance Sheet.—Frequently a business man with a credit of a few hundred dollars at his bank, based wholly on personal grounds, could, if he could produce a reliable balance sheet, readily obtain several thousand dollars, which would enable him to expand his business along sound lines.

Ability to Borrow at the Bank has a far-reaching effect on all credit, because to the bank, primarily, are directed inquiries for a rating of a manufacturer or merchant seeking credit for goods. An unfavorable or noncommittal report from the bank results in a curtailment of opportunity. It also checks expansion.

Danger in Cutting Prices.—It is a fact well understood among business men that the general demoralization in a large number of industries has been caused by firms who cut prices, not knowing what their goods actually cost to manufacture; and the cost of selling, which is equally important, is almost wholly lost sight of.

Expert Service to be Afforded by the Commission.—The Federal Trade Commission has no power to use compulsory methods to help cure the existing conditions, but it proposes to reach the desired end by putting at the service of the manufacturers and merchants who have not had the experience or advantages that larger firms possess the accountants, bookkeepers, and experts in cost of production that are employed by the Commission, and in that way to help strengthen American industries where they are weak. These services will be rendered only on the request of the individual merchant or manufacturer who desires them.

Forms for Business Men.—When there is completed within the Commission the organization for aiding business any manufacturer or merchant, on request, may receive (a) an approved form for presentation to his bank when seeking credit; (b) a form designed to show accurately and concisely his assets and liabilities, stock on hand, etc.; (c) a form of double entry bookkeeping adapted to his class of business, as well as (d) a form and method of arriving at costs, also adapted to his line of business. All of these sample forms are single in character and can be supplied by the local printer.

A pamphlet outlining a simple system of accounts, with appropriate forms, is supplied free of cost to retail merchants who apply therefor, by the Federal Trade Commission, Washington, D. C.

Benefits to be Derived from the Activities of the Commission.—First. The individual enterprises will be helped. They will be enabled to know exactly where they stand. Their prices will be made on a solid basis of fact. There will be less unfair, unhealthy, and ruinous competition. Manufacturers and merchants will be able when seeking credit to produce to their bankers correct statements of their financial condition which will enable the bankers to extend to them the full credit to which they are entitled and which they need in order to expand their business.

Second. Employees will be benefited. They will be trained to more thorough and more accurate methods of work. This improved knowledge will increase their effectiveness and their individual value to their employers.

Third. The investor will be benefited. He will be able to invest his money with greater assurance of profit.

Fourth. The public will be benefited; it will not have to pay for inefficient methods and practices.

In European countries manufacturers and merchants, aided by their Governments, have developed a high state of efficiency, which enables them to sell their goods in the markets of the World. The Federal Trade Commission desires to do what it can to aid the American manufacturer and merchant to meetthis competition in both domestic and foreign trade.

# LARGE LIBRARIES

The largest library in the world is the Bibliotheque National, in Paris, founded by Louis XIV. It contains over 3,000,000 volumes

The second largest library is that of the British Museum.

which contains something over 2,000,000.

The Public Library of New York in the third largest library in the world. It contains 1,984,653 volumes and printed pamphlets.

The Library of Congress is the fourth largest library in the

The Library of Congress is the fourth largest library in the world. It contains about 1,891,800 printed books and pamphlets.

The Imperial Library of Russia, established by Peter the Great, is the fifth among the world's great libraries. It contains about 1,300,000 volumes and 27,000 manuscripts. It attained a place in the front rank of European libraries by the acquisition of the celebrated Zaluski collection. Count Zaluski had collected about 260,000 volumes and 10,000 manuscripts. On the suppression of the Jesuit order in Russia the collection of the books in their possession was taken in charge by Prince Italinski and, among other libraries, the Prince transferred the Zaluski collection from the Jesuit College at Warsaw to St. Petersburg. The most important of the manuscripts in this library is the "Codex Sinaiticus" of the Greek Bible, brought from the convent of St. Catherine on Mount Sinai by Professor Tischendors in 1859.

# WHAT CONSTITUTES A DAY?

The word day is used in several different senses. A solar, astronomical, or apparent day is the interval between the time the sun's coming to the meridian and returning to it again. A siderial day is the interval between the time of a star's coming to the meridian and again returning to it on the immediate subsequent night, or, in other words, is the time occupied by a revolution of the earth on its axis.

A day, in law, includes the whole 24 hours from midnight to midnight. In reckoning periods of time from a certain event, the day on which the event occurred is excluded. On the other hand, if it be required to prove survival for a certain number of days, it will suffice if the person be alive for any portion, however small, of the last day. While an obligation to pay on a certain day would therefore be theoretically discharged by payment before midnight, the law requires that reasonable hours be observed—for example, if the payment (as a bill) is at a bank or place of business, it must be within banking or business hours. Generally in the United States, a bill or note becoming due on a Sunday or a holiday, is payable on the first business day thereafter.

BUSINESS EFFICIENCY.

Webster's Definition of "Efficiency."—Noah Webster defined efficiency as "The power of producing the effect intended; active,

competent power."

Nearly a hundred years have passed away since Webster wrote that definition, and during that period the gigantic development of American business has evolved a new meaning for the term, especially as applied to manufacture and trade.

Present Meaning of the Term Efficiency.—As applied to modern business, "efficiency" means "the power of securing the

largest returns for the least expenditure."

It will be noticed that the modern definition differs from Webster's in the fact that it takes into consideration the *expenditure incurred* in "producing the effect intended."

Something More than Effectiveness.—It is evident from the foregoing modern definition that business efficiency is something

more than effectiveness through system and celerity.

This "something more" has been well expressed as "getting the best results with the best methods under the best available conditions, and with the least loss or waste."

Three Cardinal Factors of Business Efficiency.—First, manage-

ment; second, capital; third, economy.

I. MANAGEMENT.—

The successful management of any business undertaking primarily depends upon the qualifications of the man who is placed in control—the manager, or, in other words, upon the manager's capacity for executing the duties he is required to perform. In order to possess such capacity he must have been thoroughly trained in the particular kind of business that is to be engaged in, and his competency should be thoroughly tested before he is intrusted with the responsibility of management. This is essential because, in order to secure efficiency, every branch of the various departments of the business must be conducted under his active and vigilant supervision.

The manager must utilize to the best possible advantage the labor-saving devices of today, such as telephones, electric annunciators, call buttons, indicators and tabulating machines, pneumatic cash and bundle carriers, elevators, cash registers, calculating machines, filing cabinets, manifolding and mailing

machines, motor delivery vehicles, etc.

Systematic and Supervising Management has grown more important and exceedingly more difficult with the rapid advance of business methods and the stupendous development of American trade and industries. Hence the primary importance of having a man in control who has both operating and executive ability, with a thorough knowledge of the most efficient modern equipments and methods, and capable of enforcing strict discipline. In fact, the efficiency of the entire business establishment depends primarily on his ability to properly supervise the conduct of the business.

Fifteen Essential Qualities of an Efficient Business Manager.—
(1) Soundness—physical, mental, and moral; (2) generalship—judicious or skillful tactics of management; (3) concentration

-ability to focus one's entire mental activity upon the work in hand: (4) energy—intensity and forcefulness in spirit and conduct proportioned to the result desired; (5) confidence—firm trust or reliance on one's self and in the certainty of the success of his undertaking: (6) enthusiasm—ardent earnestness or zeal in the pursuit of one's object; (7) deliberation—calm and careful consideration before acting; (8) industry—constant and assiduous attention to business; (9) courage—that power of the mind which enables one to meet opposition and apparent defeat with intrepidity, calmness and firmness, and when convinced of having pursued the wrong course, admit his mistakes, about face and take a fresh start; (10) resourcefulness—the faculty of creating one's own opportunities, or doing the right thing in any contingency; fertile in resources; (11) perseverance steadfastness in the pursuit of any purpose or enterprise in spite of discouragements; (12) circumspection—attentive consideration of all circumstances and conditions that may affect the desired result of a purposed course of conduct; (13) honesty -disposition to deal frankly and honorably; conscientious in the observance of obligations of honor; (14) reliability-disposition and ability to "make good"; (15) equitableness-the quality of being fair, just, impartial.

II. CAPITAL --

It goes without saying that no business can be efficiently conducted without adequate capital—money, means, resources.

Capital is essential in order to ensure the necessary pre-

paredness and equipment.

The Obtaining of Adequate Capital, however, is generally a mat ter of course where the enterprise is projected by or under the control of those who have established a character for reliability, competency and efficiency in the particular line of business to be engaged in.

III. ECONOMY.-

The third cardinal factor of efficiency is economy—the practical organization and operation of the business under the most favorable conditions and with the least loss or waste in

achieving its purpose.

The Essential Requisites of Economy are: (1) The avoidance of waste and consequent loss by use of means and methods whereby savings can be effected and the standard of work improved without injury to the productive power of the business; (2) the securement of personal efficiency among all those employed in the business from highest to lowest through proper instruction and equipment and by making it the obvious interest of each to earnestly desire a better showing of the results of his work. Such a desire is usually effected through honest recognition of merit and the assurance of impartial advancement.

It is very important that the respective duties of every employee should be clearly defined, so that each may know exactly

what is required of him.

A definite chain of responsibility from top to bottom is necessary.

Importance of Personal Efficiency.—That personal efficiency is

one of the most important sources of productiveness is coming to be recognized by the great industrbal establishments. They demand the best results of their employees and are aware that this can be obtained only through equitable compensation, fair treatment, and proper environment and equipment.

Contentment Essential to Efficiency.—In order to have personal efficiency prevail in a business or industrial establishment every employee from highest to lowest should be a cheerful worker. A discontented employee must necessarily be inefficient, for his mind is fixed upon grievances when it should be concentrated on the business in hand.

The importance of securing the personal efficiency of workers in a great industrial establishment is well expressed in the following extract from a recently published article by Judge Eilbert H. Gary, Chairman of the United States Steel Corporation: "For the building of the efficient organization, the first rule is that the heads of it observe the duties of the employer and the rights of the employees. Generous motives, fair principles and honest dealings are vastly more important as efficiency measures than the technical phases of skilled management and economical production. Next to the faith of the customer in the product, the faith of the employee in the employer becomes a vital factor in the efficiency plan of the concern. To create and preserve a kindly feeling among our workers by according them the proper treatment, equipment and environment has been perhaps our chief object and endeavor and rule for success."

Knowledge Essential to Efficiency.—The extent to which the workers of any business concern really know their business measures the extent to which that business may be really efficient. The well informed worker combines spontaneously those details of his work which make for increased speed and perfection, and a competent manager, being responsible for the economical conduct of the business, will see to it that such workers are preferred and that those who do not disclose a possibility of becoming efficient members of the force are replaced by others who show an aptitude for the work.

Standardizing a Business.—When the most efficient way of performing any task under the existing conditions is determined in any of the large mercantile or industrial establishments of today that "way" is adopted as a standard, and all employees engaged in such work are required to measure up to it.

Difficulty of Establishing Standards.—"To establish r a tion all work standards for men," observes Harrison Emerson in *The Engineering Magazine*, "requires indeed motion and time studies of all operations, but it requires in addition all the skill of the planning manager, all the skill of the physician, of the humantarian, of the physiologist; it requires infinite knowledge, directed, guided and restrained by hope, faith and compassion."

Ultimately, business efficiency is based on the sublime idea of the brotherhood of man, and he that best serves the interests of all who are concerned in the results of his work is the most efficient. Explanation-Opposite any number of feet in the left hand column will be found the Thus: 88 feet at \$4.50 per cord=\$3.09 amount at any price given at the top.

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# Number of Cords in a Pile of Wood

A cord of wood is a pile 8 feet long, 4 feet wide and 4 feet

high and contains 128 cubic feet.

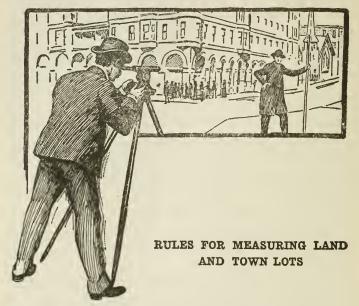
Rule. - Multiply the length in feet by the width in feet and that result by the length in feet and divide the product by 128 and you have the number of cords.

Example.—How many cords in a pile of wood 4 feet wide, ?

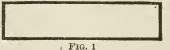
feet high, 24 feet long?

Solution.  $-4 \times 7 \times 24 = 672$  cubic feet.  $672 \div 128 = 51$  cords. Ans.

# VALUABLE MISCELLANEOUS MATTER

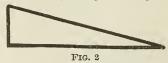


To find the number of acres in a rectangular piece of land.



Rule.—Multiply the length in rods by the breadth in rods, and divide by 160.

TRIANGULAR PIECES
When the triangle is a right-angled triangle.



Rute.—Multiply the width by the length and divide by 2.

Example.—How many acres of land in a triangular field 60 rods long and 40 rods wide?

### OPERATION

 $60 \times 40 \div 2 = 1,200 \text{ sq. rods.}$  1,200 ÷ 160 = 7½ acres.

WHERE THE TRIANGLE IS NOT A RIGHT ANGLED TRIANGLE



If a triangle is without a right angle, a perpendicular has to be found.

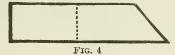
Rule.—Multiply the base in rods by the perpendicular height in rods, and divide by 2, and you have the area in square rods.

Example.—How many acres in a triangular field whose base or side is 140, and its width (perpendicular height) is 60 rods?

### OPERATION

 $140 \times 60 \div 2 = 4,200 \text{ sq. rods.}$  $4,200 \div 160 = 26\frac{1}{4} \text{ acres.}$  Ans.

To find the area of a piece of land when only two of the oppoiste sides are parallel.



Rule.—Add the two parallel sides together, and divide by 2, and you have the average length. Then multiply the width in rods by the length in rods and divide by 160, and you have the number of acres.

Example.—How many acres of land in a field, the two parallel sides of which are 80 and 120 rods long, and 50 rods wide?

### OPERATION

 $80+120 \div 2=100 \text{ rods.}$  $100 \times 50 \div 160=31\frac{1}{4} \text{ acres.}$  Ans.

# To Lay Off Small Lots of Land

Farmers and gardeners often find it necessary to lay off small portions of land for the purpose of experimenting with different crops, fertilizers, etc. To such the following rules will be helpful:

One acre contains 160 sq. rods. or 4,840 sq. yards, or 43,560 sq. feet. To measure off one acre it will take  $208_{70}$  feet each way

One-half acre it will take  $147\frac{1}{2}$  feet each way. One-third acre it will take  $120\frac{1}{2}$  feet each way. One-fourth acre it will take  $104\frac{2}{3}$  feet each way. One-eighth acre it will take  $73\frac{2}{4}$  feet each way

# To Measure Town Lots

Rule.—Multiply the length in feet by the width in feet and divide the result by 43,560 and you will have the fractional part of an acre in the lot.

Example.—What part of an acre is there in a lot 100 feet deep and 75 feet wide?

Solution.— $100 \times 75 = 7,500$  sq. feet.  $\frac{7,500}{43,560} =$ or about 1-6 of an acre.

# To Find the Number of Acres in a Given Number of Square Rods

Rule.—Remove the decimal point two places to the left in the number of square rods, divide by 8 and multiply by 5, and you have the number of acres.

Example.—How many acres in a piece of land 80 rods long and 40 rods wide?  $80\times40=3200$ . 3200 with the point removed equals  $32.00\div8=4\times5=20$  acres.

# FOSTER'S LOG TABLE.

(For larger logs see table on page 407)

Ft.	dia.	dia. 7	dia. 8	dia. 9	dia. 10	dia. 11	dia. 12	dia. 13	đia. 14	dia. 15	dia. 16	dia. 17	dia. 18	dia. 19	dia. 20	dia. 21	dia. 22
10	15	20	25	30	35	40	49	61	72	89	99	116	133	150	175	196	209
11	16	22	27	33	38	44	54	67	79	98	109	127	147	165	192	209	230
12	18	24	30	36	42	48	59	73	86	107	119	139	160	180	210	228	251
13	19	26	32	39	45	52	64	79	93	116	129	150	173	195	227	$247 \\ 266 \\ 285$	272
14	21	28	35	42	49	56	69	85	100	125	139	162	187	210	245		292
15	22	30	37	45	52	60	74	91	107	134	140	173	200	225	262		313
16	24	32	40	48	56	64	79	97	114	142	159	185	213	240	280	304	334
17	25	34	42	51	59	68	84	103	122	151	158	196	227	255	297	323	355
18	27	36	45	54	63	72	98	109	129	160	178	208	240	270	315	349	376
19	28	38	47	57	66	76	93	116	136	169	188	219	253	285	332	361	397
20 21 22 23	30 31 33 34	40 42 44 46	50 52 55 57	60 63 66 69	70 73 77	80 84 88	98 103 108	122 128 134	143 150 157	178 187 196	198 208 218	232 243 255	267 280 293	300 315 330	350 368 385	380 399 41d	418 439 460
24 25	34 36 37	48 50	60 62	72 75	80 84 87	92 96 100	113 118 123	140 146 152	164 172 179	205 214 223	228 238 248	266 278 289	307 320 333	345 360 375	403 420 438	437 456 475	480 501 522

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\$0.57.2 1.14.4 1.17.6 2.28.8 2.28.8 2.28.0 3.48,2 4.00,6 4.00,6 5.147.6 5.147.6 5.147.6 5.147.6 5.147.0 17.14.0 17.0 17.14.0 17.0 17.0 17.0 17.0 17.0 17.0 17.0 17	Chinese Tael (Haikwan.)
80.40,2 0.80,4 1.80,6 1.60,8 2.01 2.21,6 2.81,4,2 2.81,6 2.81,6 3.61,8 3.61,8 12.06 12.06 10.08 20.10	Dutch Florin.
\$0.64.4 0.64.4 1.62 2.26.4.4 2.26.4.4 2.26.4.4 2.26.26	Indian Rupee.
\$0.51,5 1.03,5 2.06,5 2.57,5 3.60,5 4.12,5 4.63,5 15.45,5 15.45,5 25.75,5 25.75,5	Russian Gold Ruble.
\$0.20,3 0.40,6 0.60,9 0.81,2 1.01,5 1.42,1 1.42,1 1.82,7 2.03 4.06 6.09 8.12 10.15	Austrian Crown,

TABLE SHOWING THE VALUE OF FOREIGN COINS AND PAPER NOTES IN AMERICAN MONEY BASED UPON THE VALUES EXPRESSED IN TABLE SHOWN ON PAGE 418

# VALUE OF FOREIGN COINS IN UNITED STATES MONEY

(Proclaimed by the Secretary of the Treasury, October 1, 1908.\*)

Coins	Gold: argentine (\$4.82.4) and \$\frac{1}{2}\$ argentine. Silver: peco and divisions. Gold: former system—4 florins (\$1.92.9), 8 florins (\$3.63.5), ducar (\$2.28.7), and 4 ducats (\$9.14.9). Silver: 1 and 2 florins. Gold: present system—20 crowns (\$4.05.2)	and to trowns, \$2-0.5.0.0 Gold: 10 and 20 francs. Silver: 5 francs. Silver: boliviano and divisions. Gold: 5, 10, and 20 milreis. Silver: ‡, 1, and 2 milreis.	Silver: peso and divisions. Gold: secudo (\$1.82,5), doubloon (\$3.65), and condor (\$7.30). Silver: peso and divisions.	Gold: condor (89.64,7) and double-condor.	Cold.: 2, 10, and 20 colons (\$9.30,7). Silver: 5, 10, 25, and 50 centimos. Gold: doubloon (\$5.01,7); Alphonse (\$4.82,3).	Sulver: peso. Gold: 10 and 20 crowns. Gold: 10 sucres (\$4.86,65). Silver: sucre and	Gold: pound (100 piasters), 5, 10, 20, and 50 piasters. Silver: 1, 2, 5, 10, and 20 piasters.
Value in U. S. Gold Dollar.	\$0.96,5	.19,3 .38,2 .54,6	1.00 .46.5 .36,5	.57.2 .63,7 .62,4 1.00	.46,5	.26,8	4.94,3
Monetary Unit.	Peso	GoldFranc SilverBoliviano GoldMilreis	DollarPesot.	Taelt Shanghai Ganton Dollar	Colon.	GoldCrown	Gold Pound (100 piasters).
Standard	Gold Crown	Cold Silver Gold	Gold Dollar Silver Pesot Gold Peso	Silver	Gold	Gold	Gold
Country	Argentine Republic Gold Peso Austria-Hungary Gold Crown	Belgium. Bolivla Brazil.	Canada Central America Chile	China	Costa Rica		Egypt

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# VALUE OF FOREIGN COINS IN UNITED STATES MONEY.—Continued

Country.	Standard	Monetary Unit	Value in U. S. Gold Dollar.	Coins.
France. Gold Franc. Gold Mark. Great Britain Gold Mark. Creat Britain Gold Drawhma Stelling.	Gold Franc Gold Mark Gold Pound S	Gold Franc Gold Mark Gold Pound Sterling	19.3 23.3 4.863.6 196.63	Gold: 5, 10, 20, 50, and 100 frs. Silver: 5 frs. Gold: 5, 10, and 20 marks. Gold: sovereign (pound sterling) and \$ sov'gn. Gold: 5, 10, 20, 50, and 100 december 3, 10, 20, 50, and 100 decemb
HaytiGoldGourde	Gold	Gourde	.96,5	5 drachmas. Gold: 1, 2, 5, and 10 gourdes. Silver. gourde
India. Gold Pound Sterlings. Islay Gold Lira Gold Japan Gold Yen.	Gold	Pound Sterlings Lira Yen	4.86,63 .19,3 .49,8	and divisions. Gold: sov. (\$4.86,65), Sil.: rupec and div'ns. Gold: 5, 10, 20, 50, and 100 lire. Silver: 5 lire. Gold: 1, 2, 5, 10, and 20 yen. Silver: 10. 20,
MexicoGold		Peso	49.8	and 50 sen. Golds, 5, 10, pesos. Silver: dollar (or peso) and
Netherlands. Newfoundland. Norway	Gold	Gold Florin Gold Dollar Gold Crown	1.01,4 2.6.8	divisions. Gold: 10 farins. Silver: 4, 1, and 24 florins. Gold: 2 dollars (\$2.02,7). Gold: 10 and 20 erowns.
*Peru (fold Libra Portugal (Gold Milrels Russia (Gold Ruble )	Gold Gold Gold	Gold Libra Gold Milreis Gold Ruble	4.86,65 51,5	Gold: 15 and 1 libra. Silver: sol and divisons. Gold: 1, 2, 5, and 10 milreis. Gold: imperial (\$7.71.8) and \$\frac{1}{2}\$ imperial, 7\$ ru-
Spain Sweden Switzerland	Gold Peseta Gold Crown Gold Franc	Gold Peseta Gold Crown Gold Franc	.19,3 .26,8 .19,3	bles (\$3.86). Silver: 4, 4, and 1 ruble. Gold: 25 pesetas. Silver: 5 pesetas. Gold: 10 and 20 crowns. Gold: 5, 10, 20, 50, and 100 francs. Silver:
Turkey         Gold         Piaster           Unuguay         Gold         Peso           Venezuela         Gold         Bolivar           Panazanal         Gold         Balboa	Gold Gold Gold	Piaster Peso. Bolivar Balboa	.04,4 1.03,4 1.00 1.00	<ul> <li>Parantes.</li> <li>Gold: 25, 50, 100, 250, and 500 piasters.</li> <li>Gold: peso. Silver: peso and divisions.</li> <li>Gold: 5, 10, 20, 50, and 100 bolivars. Silver: 5 bolivars.</li> </ul>

\* The coins of silver-standard countries are valued by their pure silver contents, at the average market price of silver for the three months preceding the date of this circular. † Not including Costa Rica. † The British dollar has the same value as the Mexican at Hong Kong and the Straits Settlement. § The sovereign is the standard coin of India, but the rupee (\$0.32,4) is the money of account, current at 15 to the sovereign.

# Miscellaneous Table of Things, Distances, Books, Etc.

A book composed of sheets folded into 2 leaves is a folio.

A book composed of sheets folded

into 4 leaves is a quarto.

A book composed of sheets folded into 8 leaves is an octavo (8vo).

A book composed of sheets folded into 12 leaves is a duodecimo (12mo).

A book composed of sheets folded into 16 leaves is a 16mo.

12 units make 1 dozen.

12 dozen make 1 gross. 12 gross (144 dozen) make 1 great gross.

20 units make 1 score.

56 pounds of butter make 1 firkin. 100 pounds of fish make 1 quintal.

196 pounds of flour make 1 barrel. 200 pounds of beef, pork, shad or salmon make 1 barrel.

24 sheets of paper make 1 quire.

20 quires make 1 ream. 2 reams make 1 bundle. 5 bundles make 1 bale.

3 barleycorns make 1 inch. 18 inches make 1 cubit.

22 inches make 1 sacred cubit. 9 gallons make 1 English firkin. 2 firkins make I kilderkin.

2 kilderkins make 1 barrel. 25 pounds make 1 keg (powder). 100 pounds make 1 cental (grain

measure). 100 pounds make 1 cask (raisin measure).

256 pounds make 1 barrel of soap. 280 pounds make 1 barrel of salt. 31½ gallons make 1 barrel (wine

measure). 42 gallons make 1 tierce (wine meas-

ure' 63 gallons make 1 hogshead (wine measure).

84 gallons make 1 puncheon (wine measure).

126 gallons make 1 pipe (wine measure).

252 gallons make 1 tun (wine measure).

8 bushels of wheat (of 70 lbs. each) make 1 quarter (European meas-

8 bushels of salt make 1 hogshead. 36 bushels of coal make 1 chaldron

(English). 32 bushels make 1 chaldron (American).

14 pounds make 1 stone.

211 stones make 1 pig (iron).

8 pigs make 1 fother.

24% cubic feet (masonry) make 1 perch.

100 square feet (carpentry) make 1 square. 1,760 yards (5,280 feet) make 1

statute mile. 2,028.63 yards (6,085.9 feet) make 1

nautical mile.

3 miles make 1 league. 69½ statute miles make 1 degree (of latitude).

60 geographical miles make 1 degree (of latitude).

360 degrees make 1 circle. 60 pairs of shoes make 1 case. 9 inches make 1 quarter (of a yard).

3 quarters make 1 ell (Flemish). 5 quarters make 1 ell (English). 6 quarters make 1 ell (French). 4 inches make 1 hand (measuring

horses). feet make 1 fathom (depth of water).

120 fathoms make 1 cable-length. 71 cable-lengths make 1 mile. 640 acres make 1 square mile.

36 square miles make 1 township. 4 farthings make 1 penny (marked d). 12 pence make 1 shilling (marked s). 20 shillings make 1 pound (marked £). 21 shillings make 1 guinea.

5 shillings make 1 crown.

# NAILS REQUIRED IN CARPENTER WORK.

To case and hang door, 1 pound.
To case and hang one window, ½ pound.
Base, 100 lineal feet, 1 pound.
To put on rafters, joists etc., 3 pounds to 1,000 feet,
To put up studding, 3 pounds to 1,000 feet.
To lap a 6-inch pine 200r, 15 pounds to 1,000 feet.

# NUMBER OF NAILS TO THE POUND.

0	penny	fence	, 2	inches	80
8	penny	fence	, 24/2	inches	50
10	penny	fence	, 3	inches	34
12	penny	fence	, 31/4	inches	39
3	penny	fine,	1 1/3	inches	760
3	penny,	11/4	inches		480
4	penny,	11/2	inches		300
5	penny,	1	inch		200
6	penny,	2	inches		160
7	penny,	21/4	inches		128
8	penny,	$2\frac{1}{2}$	inches		92
9	penny,	2	inches		72
10	penny,	3	inches		60
12	penny,	31/4	inches		44
16	penny,	$3\frac{1}{2}$	inches		32
20	penny,	4	inches		24
30	penny,	41/4	inches		18
40	penny,	5	inches		14
50	penny,	$5\frac{1}{2}$	inches		12

# HOW THE PANAMA CANAL AFFECTS THE WORLD'S COMMERCE

Through the completion of the Panama Canal all ports on the Pacific coasts of the Americas, which formerly were about as far from New York as from Liverpool, find themselves drawn within the circle of New York trade.

"Herein," observes Benjamin Ide Wheeler, president of the University of California, "lies a factor that brooks no gradual process of development. It means revolution. It means, for example, eleven days less time for Callao to get an order filled in New York than in Liverpool. It means that the region on the globe over which the Panama route is dominant from New York outward, in competition with the Suez route from Liverpool outward, stretches northwest to include Northern China from Shanghai onward, and Japan, Eastern Russia and the Pacific islands; and southwest to include New Zealand and Eastern Australia. The opening of the canal directly affects all the lands which are touched by Pacific waters except Southern Asia and the East Indies."

The countries so affected include about one-fifth of the land surface of the earth, and embrace a population aggregating one-third of the human race—a hitherto unexploited area in the realm of international trade. The northwestern corner of the area is marked by Shanghai, which is 10,649 miles distant from New York by Panama and 10,607 miles from Liverpool by Suez, while the southwestern corner is marked by Melbourne, which is 10,028 miles distant from New York by Panama and 11,654 miles from Liverpool by the Suez route.

How distances are shortened by the canal between various ports of the world is shown by the following extracts from the United States consular reports:

Between New York and Yokohama the reduction is 3,729 miles, and that Japanese city is brought nearer to New York than Liverpool by 1,805 miles. Shanghai is 1,629 miles nearer to New York. Sydney, Australia, is 3,806 miles nearer to New York, and the distance between the two cities is 2,382 miles less than the distance between Sydney and Liverpool. Wellington, New Zealand, is 2,542 miles nearer New York, and the distance between them is 2,759 miles less than be-

tween Wellington and Liverpool. Between New Zealand and Europe there is an average saving of 1,600 miles.

The canal brings Callao, Peru, 4,320 miles nearer Liverpool by steamer, reducing the distance from 10,230 miles to 5,910 miles and saving about 14 days in time. To Valparaiso the shortening in distance is 1,813 miles, making it 7,185 instead of 8,998, and the saving in time is about 6 days. By its means the United States has an all-sea route, which is from 2,500 to 3,000 miles shorter than routes from Europe. New York, via the canal, is 3,379 miles from Callao, instead of 9,769 as formerly.

By the former route the distance from New York to San Francisco by water is 12,800 miles, while by the canal it is but 7,000 miles.

South American Trade.—The diplomatic and consular agents of every European commercial nation are studying the probable effect of the canal on the trade of their respective countries and Mr. John Barrett, Director-General of the Pan-American Union, warns the American Government and American manufacturing, exporting and shipping interests that they must exert themselves to the limit if they would derive as much benefit from the canal as other countries will derive.

"European commercial organizations and private business houses," says Mr. Barrett, "have their scouts all over the world—particularly in the twenty countries of Latin-America—investigating every phase of their import and export markets," and he urgently recommends that the slogan from now on of our government, our commercial and civic organizations, our private business interests and even of our schools shall be: "Get ready for the Panama Canal and go after Pan-American commerce."

"We must remember," says Mr. Barrett, "that the foreign commerce of Latin-America now totals nearly two billion five hundred million dollars a year, an increase of one billion dollars in the last ten years.

"We must not forget that the trade of the United States, exports and imports, with these countries has already reached the seven hundred million dollar mark, which is nearly one nundred per cent. greater than it was six or seven years ago."

# RACES OF MANKIND CLASSIFIED

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Table showing the different races of mankind divided into racial stocks, groups and peoples, with their distinctive complexions and numbers.

RACE	STOCK	GROUP	PEOPLES
		Teutonic (223,000,000)	Scandinavian: Danish Norwegian Swedish German Dutch English (Anglo-Saxon) Flemish
		Lettic (4,000,000)	Lett   Lithuanian   Scotch (part)   Irish "
		Celtic (9,250,000)	Welsh "Armoric or Breton
			Russian Polish Czech Bohemian Moravian Serbian
		Slavonic (132,000,000)	Croatian   Montenegrin   Slovak
	Aryan	<b> </b>	Slovenian   Ruthenian   Dalmatian   Herzgovinian
	originated in Central Asia and to have mi- grated into India and Europe.)	Illyric (1,500,000)	Bosnian   Bulgarian (part)   Albanian
	Editope.)	Armenic (3,000,000) Hellenic	Armenian Greek
		(5,000,000)	(French Italian (part)
		Italic (165,000,000)	Roumanian Spanish Mexican, etc. Portuguese
Caucasian (Numbering 880,- 350,000, Complex-	}	Iranic (22,000,000) Caucasic	Persian   Gypsy   Caucasus peoples
ion generally white, but some- times dark or brown.)		(10,000,000) Euskaric (600,000)	Basques
brown.)	Semitic	Indic	Hindus, Mahrattas, etc.
	Semitic (Numbering 30,000,000, and supposed to be descended from Shem. Complexion dark or brown,)	Arabic Hebraic	Redouins   Bedouins   Hebrew or Jewish
	Hamitic	Egyptian Lybian	Coptic   Berber   Lybian   Abyssinian
	descendants of Ham, second son of Noah.)	Abyssinlan	Nubian Galla Someli

RACE	STOCK	GROUP	PEOPLE
	Malayan	• • • • • • • • • • • • • • • • • • • •	Malays of Malacca and Sumatra
Malay (Numbering 35,000,000, Com- plexion brown or	Tagala	• • • • • • • • • • • • • • • • • • • •	Tagals (of the Philippines)
		•••••	Javanese, etc. (of Java)
yellowish.)	Hova		Hovas(of Madagascar)
	Dyak	• • • • • • • • • • • • • • • • • • • •	Dyaks, etc. (of Borneo, etc.)
	÷	Finic	Finnish Lappish Magyar Bulgarian (part)
		Tartaric	Turkish, Cossac, etc.
Mongolian (Numbering 682, 000,000. Complex- ion yellow or dark.)	Sibiric	Japanese	Japanese, Korean
		Mongolic	Kalmuk
	Sinitic (564,000,000)	Chinese	Chinese Siamese Burmese, etc.
	Negro	••••••	Senagambian Dahomeys Ashantis, etc.
Ethiopian	Bantu	•••••	{ Bantus: Kaffirs, Zulus, etc.
(Numbering 150,- 000,000. Complex- ion black or	Papuan		Papuans and Melanes-
brown.)	Polynesian		Polynesian, Austral- ian, Maori, etc.
	Negrito		Negrito
American Indian	(North American.	Algonkian, etc.	Arapaho, etc.
Aboriginese of America	North American .	Aztecan, etc	Aztec, etc.
(Numbering 25,000,000, Com-	Central American	Maya, etc	Lacandon, etc.
plexion red, cop- per-color or yel- lowish.)	South American .	Arawak, etc	Manoa, etc.

# UNCLASSIFIED PEOPLES

Eskimos, etc., of the Arctic regions, numbering 40,000. Complexion, light brown.

Singhalese, of the island of Ceylon, numbering 2,000,000. Complexion, brown. Hottentots and Bushmen, of Southwest Africa, numbering 117,000. Total of all races and peoples, 1,931,350,000.

# Line of Perpetual Snow

The line of perpetual snow varies with latitude, and is as follows in feet above sea-level.

LATITUDE	FEET	LATITUDE	FEET
0	13,478	40. 50. 60. 70.	6,334 3,818

# Longest Rivers

	MILES
Missouri-Mississippi	4,194
Nile	.4,020
Yang-Tze	3.158
Amazon	3.063
Yenisei	
Amur	
Congo	

# Deepest Seas

Pacific Ocean, deepest30,000	
Atlantic	
Southern	
Arctic 9,000	
Lake Baikal	

# A CENTURY OF PROGRESS

The nineteenth century received from its predecessors the horse. We bequeath the bicycle, the locomotive, and the automobile.

We received the goosequill, we bequeath the fountain pen and typewriter.

We received the scythe, we bequeath the mowing machine.

We received the sickle, we bequeath the harvester.

We received the hand printing press, we bequeath the Hoe cylinder press.

We received the painter's brush, we bequeath lithography, the camera, and color photography.

We received the hand-loom, we bequeath the cotton and woolen factory.

We received gunpowder, we bequeath nitro-glycerine.

We received twenty-three chemical elements, we bequeath eighty.

We received the tallow dip, we bequeath the arc light.

We received the galvanic battery, we bequeath the dynamo.

We received the flint lock, we bequeath automatic Maxims.

We received a sailing ship, we bequeath the steamship.

We received the beacon signal fire, we bequeath the telephone and wireless telegraphy.

We received leather fire-buckets, we bequeath the steam fireengine.

# APPORTIONMENT OF REPRESENTATIVES

# In the Congress of the United States

Under-		Census.	Apportionment		Whole Number of Represent-	
CNDER	Year.	Population.	Year.	Ratio.	atives.	
Constitution. First Census. Second Census. Third Census Fourth Census. Fifth Census. Sixth Census Seventh Census. Eighth Census. Minth Census. Tenth Census. Tenth Census. Tenth Census. Teventh Census Twelfth Census	1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900	3,929,214 5,308,483 7,239,881 9,633,822 12,866,020 17,069,453 23,191,876 31,443,321 38,558,371 50,155,783 62,622,250 74,565,906	1789 1793 1803 1813 1823 1833 1843 1853 1863 1873 1883 1893 1901	30,000 33,000 35,000 40,000 47,700 70,680 93,423 127,381 131,425 151,911 173,901 194,182	65 105 141 181 213 240 223 233 243 293 325 356 386	
Thirteenth Census	1910	93,346,543			418	

# Cost of War and Education

In some tables recently compiled the amount per capita expended by various governments for military and educational purposes is set down as follows:

Mili-	Educa-	Mili- tary.	Educa-
_ tary.			
France\$4.00	\$0.70	Bavaria	\$0.40
Prussia 2.04	.50	Denmark 1.76	.94
Russia 2.04	.03	Italy 1.52	.34
England 3.72	.62	Belgium 1.38	.46
Holland 3.58	.74	Austria 1.36	.32
Saxony 2.38	.38	Switzerland	.84
Wurtemburg 2.38	.38	United States30	1.35

# Troops in Wars of the United States

		_
Wars.	Years.	Total troops.
Revolution Northwest Indians With France (Naval) With Tripoli (Naval) Creek Indians War of 1812 Seminole Indians Black Hawk Indians Creek Indians Creek Indians Cherokee troubles Florida Indians Aroostook troubles Mexican Apache, Navajo and Utah	1775-1783 1790-1795 1798-1800 1801-1805 1813-1814 1812-1815 1817-1818 1831-1832 1836-1837 1836-1837 1835-1843 1838-1839 1846-1848 1849-1855	395,330 8,983 4,593 3,330 13,781 528,274 5,911 5,031 12,483 3,926 29,253 1,500 108,475 2,561 3,687
Seminole Indians. Civil War Spanish War	1861–1865 1898	2,778,304 298,913

# COST OF WARS IN THE UNITED STATES

Revolutionary\$ 135,193,703.0	0
War of 1812–15	0
Mexican War	0
Rebellion	
According to the second	•
Estimated cost of Indian wars from July 4, 1776, to June 30, 1886	8
Spanish-American, including \$20,000,000.00 for Philippine Islands	0
Islands	•
Losses in wars—	
Revolution (English) 50,000 me	n
1812-15 killed and wounded 5,614 "	
Mexican War	
(Union.—died	
Rebellion, { Union,—died	
*Spanish-American, killed, wounded and died in camp 3,833 **	

<sup>\*</sup>These figures do not include those who died after being mustered out.

# BLOODY BATTLES

The losses in the battle on the Yalu in the Japanese-Russian War were from 1,000 to 4,000 men on both sides. Compared with battles in the American Civil War, such losses are as "drops in a bucket." The figures in the following list of the bloodiest battles of the Civil War in the United States are from the "Statistical Record of the Armies of the United States," by Capt. Frederick Phisterer. They include killed, wounded and missing.

Battle.	Union.	Confed-	
		erate.	Total.
Antietam	12,469	25,899	38,368
Atlanta	3,641	8,499	12,140
Bull Run, First	2,952	1,752	4,704
Bull Run, Second	7,800	3,700	11,500
Cedar Creek	5,995	4,200	10,195
Chancellorsville	16,030	12,281	28,211
Chickamauga	15,851	17,804	33,655
Cold Harbor	14,931	1,700	16,631
Corinth	2,359	9,433	11,782
Franklin	2,326	6,252	8,578
Fredericksburg	12,353	4,576	16,929
Gettysburg	23,186	31,621	54,807
Missionary Ridge, etc	5,616	8,684	14,300
Perryville	4,348	4,500	8,848
Shiloh	13,573	10,699	24,272
Stone River	11,578	14,560	16,138
Wilderness	18,387	11,400	29,787

### CIVIL WAR STATISTICS

The following, giving the number of persons in the Army, Navy and Marine Corps in the war of 1861-65, is taken from the latest revised reports of the Government:

	White	Sailors.	
States, Territories, etc.	troops	and	Colored
	of army.	marines.	troops.
Alabama	2,556		
Arkansas	8,289		
California	15,725		
Colorado	4,903		
Connecticut	51,937	2,163	1,764
Dakota	206		
Delaware	11,236	94	954
District of Columbia	11,912	1.353	3;269
Florida	1,290		
Illinois	255,057	2,224	1.811
Indiana	193,748	1,078	1,537
Iowa	75,797	5	440
Kansas	18,069		2,080
Kentucky	51,743	314	23,703
Louisiana	5,224		
Maine	64,973	5,030	104
Maryland	33,995	3,925	8,718
Massachusetts	122,781	19,983	3,966
Michigan	85,479	438	1,387
Minnesota	23,913	3	104
Mississippi	545		
Missouri	100,616	151	8,344
Nebraska	3,157		
Nevada	1,080		
New Hampshire.	32,930	882	125
New Jersey	67,500	8,129	1,185
New Mexico	6,561	0.7.101	
New York	409,561	35,164	4,125
North Carolina	3,156	0.074	
Ohio	304,814	3,274	5,092
Oregon	1,810	14.00	0.010
Pennsylvania	315,017	14,307	8,612
Rhode Island	19,521	1,878	1,837
Tennessee	31,092		
Texas	1,965	010	120
Vermont	32,549	619	120
Washington	964	-	100
West Virginia	31,872	133	196 165
Wisconsin	91,029	133	169
Indian Nation	†3,530		*00 227
*Colored troops	_		*99,337
Totals	0.400.100	101 147	170 075
Totals	2,498,122	101,147	178,975

<sup>\*</sup>Number not credited on the quota of any State. † Indians.

The number of casualties reported by the Provost Marshal-General was: Killed in battle, 61,362; died of wounds, 34,727; died of disease, 183,287; fotal deaths, 279,376; desertions, 199,105. The bounties paid by the several States was (about) \$285,941,036. The nativity of the soldiers in the Federal Army during the war was as follows: United States, 1,523,300; German, 176,800; Irish, 144,200; British-American. 53,500; English, 45,500; other foreigners, 48,400; foreigners, unknown nativity, 26,500.

### STATES AND TERRITORIES OF THE UNION

Salaries and Terms of Governors, Areas, Dates of Admission, Thirteen Original States, Population in 1900 and 1910, and Electoral Vote

States	Govern	nor's	Area in	When	Popu-	Popu-		toral tes
and Territorles	Salary	Trm. Yrs.	Square Miles	Ad- mitted	lation in 1900	lation in 1910	1908	192
Alabama	\$7,500		52,250	1819	1,828,697	2,138,093	11	12
Alaska	7,000	4	590,884		63,592	64,356	•••	
Arizona	4,000	2	113,020	1912	122,931	204,354	••	3
Arkansas	1 4,000	2	53,850	1836	1,311,564	1,574,449	9	9
California	10,000		158,360	1850	1,485,053	2,377,549	10	13
Colorado	5.000 5.000	2	103,925	1876	539,700	799,024	5	6
Connecticut	4,000		4,990	*1788 *1787	908,420	1,114,756	3	3
Delaware	4,000	4	2,050	1101	184,735	202,322	٥	3
District of	1		70		278,718	331,069		
Columbia	6,000	4	58,680	1845	528,542	752,619	5	6
Georgia	5,000		59,475	*1788	2,216,331	2,609,121	13	14
Hawaii	7,000	4	6,740		154,001	191,909		
Idaho	5,000	2	84,800	1890	161,772	325,594	3	4
Illinois	124000	4	56,650	1818	4,821,550	5,638,591	27	29
Indiana	8.000	4	36,350	1816	2,516,462	2,700,876	15	15
Iowa	5,000	2	56,025	1846	2,231,853	2,224,771	13	13
Kansas	5,000	2	82,080	1861	1,470,495	1,690,949	10	10
Kentucky	6,500	4	40,400	1792	2,147,174	2,289,905	13	13
Louisiana	5,000	4	48,720	1812	1,381,625	1,656,388	9	10
Maine	3,000	2	23,040	1820	694,466	742,371	B	6
Maryland	4,500	4	12,210	*1788	1,188,044	1,295,346	8	8
Massachusetts	10,000	1	8,315	*1788	2,805,346	3,366,416	16	18
Michigan	5,000	2	58,915	1837	2,420,982	2,810,173	14 11	15 12
Minnesota	7,000	2	83,365	1858	1,751,394	2,075,708	10	10
Mississippi	5,000	4	46,810	1817 1821	1,551,270	1,797,114	18	18
Missouri	1 5,000	4	69,415 146,080	1889	3,106,665 243,329	3,293,335 376,053	3	4
Nebraska	2,500	2	77,510	1967	1,066,300	1,192,214	8	8
Nevada	7,000	4	110,700	1864	42.335	81.875	3	3
New Hampshire	3,000	2	9,305	*1788	411,588	430,572	4	4
New Jersey	10,000	3	7,815	*1787	1,883,669	2,537,167	12	14
New Mexico	5,000	2	122,580	1011	195,310	327,301		3
New York	10,000	2	49,170	*1788	7,268,894	9,113,614	39	45
North Carolina	5,000	4	52,250	1789	1,893,810	2,206,287	12	12
North Dakota	5,000	2	70,795	1889	319,146	577,056	4	5
Ohio	10.000	2	41,060	1803	4,157,545	4,767,121	23	24
†Oklahoma	4,500	4	70,430	1907	790,391	1,657,155	7	10
Oregon	5,000 <b>10</b> ,000	4	96,030	1859	413,536	672,765	34	5 38
Pennsylvania	8,000	4	45,215	*1787	6,302,115	7,665,111		
Porto Rico Rhode Island	3,000	4	3,600 1,250	*1790	953,243	1,118,012	4	5
South Carolina	3,000	2 2	30,570	*1788	428,556 1,340,316	542,610 1,515,400	9	9
South Dakota	3.000	5	77,650	1889	401,570	583,888	4	5
Tennessee	4,000	2 2	42,050	1796	2,020,616	2,184,789	12	12
Texas	4,000	2	265,780	1845	3,048,710	3,896,542	18	20
Utah	6,000	4	84,970	1896	276,749	373,351	3	4
Vermont	2,500	2	9,565	1791	343,641	355,956	4	4
Virginia	5,000	4	42,450	*1791 *1788	1,854,184	2,061,612	12	12
Washington	6.000	4	69,180	1889	518,103	1,141,990	5	7
West Virginia	5,000	4	24,780	1863	958,800	1,221,119	7	8
Wisconsin	5,000	2	56,040	1848	2,069,042	2,333,860	13	13
Wyoming	4,000	4	97,890	1890	92,531	145,965	3	3
Total					78,271,811	93,346,543	483	531‡
							-	
*Dotos of retify	mer tha	6 nnnt	144741 Om	home dilata	doon animi-			

<sup>\*</sup>Dates of ratifying the Constitution by thirteen original states,
Area of new possessions not included in above list: Philippines, 140,000
square miles; Guam, 150; Tutuila and islets, 79. Population, Philippines, about
\$,000,000; Guam, about \$8,661; Tutuila, 5,800.
†Öklahoma and Indian territory admitted as State of Oklahoma in 1907.
†April 1911, the House of Representatives passed a bill providing for an increase of membership for from 391 to 495 apportioned, according to 1910
census—including one each for Arizona and New Mexico.

1. Arkansas Governor gets \$1,000.00 additional and Montana Governor gets
\$2,500.00 additional towards expenses of executive mansion.

# PRESIDENTS OF THE UNITED STATES

Age;	588888888888888888888888888888888888888
Year.	1779 1726 1831 1831 1840 1840 1840 1840 1840 1840 1840 184
Place of Death;	Mt. Vernon, Va. Monticello, Va. Monticello, Va. Monticello, Va. Monticello, Va. Monticello, Va. Moshington, D. G. Hidenwold, N. Y. Washington, D. C. Richmond, V. S. Mashville, Penn Mashville, Penn Mashville, Penn Mashville, Penn Mashville, Penn Mashville, Penn Goncord, N. H. Wheetland, P. C. Goncord, N. H. Wheetland, P. C. Goncord, N. H. Wheetland, P. C. Euche's Depot, Tenn Mt. McChegor, N. Y. Fremont, O. Long Branch, N. J. New York Gity New York
Politics.	Fed.   Fed.   Rep. *   Rep.   Rep
naugurated.	222222222222222222222222222222222222222
Inaugu Year.	1779 1779 1779 1779 1779 1779 1779 1779
Resi-	Va. Y.
Paternal Ancestry.	English English English Welsh English English Scotch-Irish Dutch English
Year.	1732 1743 1754 1754 1757 1767 1767 1767 1769 1779 1779 1779 177
Birthplace.	Westmoreland Co., Va. Guincy, Mass Shadwell, Vi. Fort Conway, Va. Westmoreland Co., N. C. Kinderlook, N. Y. Berkeley, Va. Greenway, Va. Greenway, Va. Greenway, Va. Hilsboro, N. H. Cove Gap, Pa. Larue Co., Ky. Halisboro, N. G. Point Pleasant, O. Cytahoga Co., O. Kildredl, Vi. Nica, O. Kildredl, N. J. North Bend, O. Nica, O. Kildredl, N. J. North Bend, O. Nica, O. Kildredl, N. J. Kildre
Name.	1 George Washington. 2 John Adams. 3 Thomas Jefferson. 5 James Madison. 6 James Mource. 6 John Quincy Adams 7 Andrew Jackson. 8 Martin Van Buren. 10 John Tyler. 11 James K. Polk. 12 Zachary Taylor. 13 Millard Fillinove. 14 Franklin Fierce. 15 James Buchanan. 16 Arraham Lincoln. 17 Andrew Johnson. 18 Uyases S. Grant. 20 James A. Garfield. 21 Cheyer Geveland. 22 Cheyer A. Arthur. 23 Benjamin Harrison. 24 Grove Geveland. 25 William McKinley. 26 Theodore Roosevelt. 27 William M. Taft. 28 WOOGROW Wilson.

documentary evidence to show that Jackson was born in Union County, N. C., less than a quarter-mile from the South Carolina line. \* The Democratio party of to-day claims lineal descent from the first Republican party and President Jefferson as its founder. \* Political parties were disorganized at the Jackson called himself a South Carolinian and his biographer, Kendall, recorded his birthplace in Lancaster County, S. C., but Parton has published time of the election of John Quincy Adams. He claimed to be a Republican, but his doctrines were decidedly Federalistic. The opposition to his Admin: istration took the name of Democrats and elected Jackson President,

### RELIGIOUS VIEWS AND CHURCH CONNECTIONS OF OUR PRESIDENTS

George Washington was a member of the Episcopal Church, and a great believer in prayer, as is evidenced by numerous messages. One was: "The blessing and protection of Heaven are at all times necessary, but especially so in time of public danger and distress." He also said: "Though I am a member of the Church of England, I have no exclusive partialities."

John Adams was a Congregationalist, and came of a long line of Puritan ancestors, but was very liberal in his views as to religion. He was baptized October 26, 1735, in the first church

of Quincy, called "The Church of Statesmen."

Thomas Jefferson's ideas on religion are difficult to classify. He was an admirer of the great Tom Paine, the agnostic, and was denounced from New England pulpits as a "Godless man," but a letter to Mrs. John Adams shows that he believed in a future life, where "we will meet our friends," and his life was a strictly moral one. He belonged to no church.

John Quincy Adams was a Congregationalist, like his father,

and wrote a hymn.

Madison and Monroe were both Episcopalians in good standing. Andrew Jackson was notoriously irreligious in his early manhood and mature life. As a youth at Salisbury, he is described as "the most roaring, rollicking, game-cocking, horse-racing, cardplaying, mischievous fellow that ever lived in the town." After his retirement from the Presidency he became converted and joined the Presbyterian Church, his dying words being: "My dear children and friends and servants, I hope and trust to meet you all in heaven, both white and black."

Martin Van Buren never made any religious profession, but

was a man of irreproachable morality.

William Henry Harrison was an Episcopalian of strong con victions, which prevented him from fighting duels.

John Tyler was also an Episcopalian.

James K. Polk made no profession until he was on his deathbed, when a Methodist clergyman sprinkled him.

Zachary Taylor apparently gave the matter of religion no thought, but his wife was an Episcopalian, and he contributed to the support of that church.

Millard Fillmore was a very quiet and pious man, who affiliated

with the Baptists.

Franklin Pierce was an Episcopal communicant.

James Buchanan was always pious, but didn't join the church until after his retirement from the Presidency, when he became a Presbyterian.

Abraham Lincoln was profoundly reverential, and though uncommitted to any special creed, he was essentially a devout believer. Both his parents were Baptists.

Andrew Johnson was not a member of any church, but a tacit believer in Christianity. He inclined to Methodism.

Ulysses Grant was a Methodist, and extolled for his piety by his biographers, though he was never demonstrative.

Rutherford B. Hayes was a Methodist.

James A. Garfield was a member of the Church of Christ.

Chester A. Arthur was an Episcopalian.

Benjamin Harrison was a Presbyterian, and active in church affairs.

Grover Cleveland was a Presbyterian.

William McKinley was a Methodist.

Theodore Roosevelt is a member of the Reformed Dutch Church, and sometimes preaches from its pulpit.

William H. Taft is a Unitarian.

Woodrow Wilson is a Presbyterian.

### THE PRESIDENTIAL SUCCESSION

The Presidential succession is fixed by chapter 4 of the acts of the Forty-ninth Congress, first session. In case of the removal, death, resignation, or inability of both the President and Vice-President, then the Secretary of State shall act as President until the disability of the President or Vice-President is removed or a President is elected. If there be no Secretary of State, then the Secretary of the Treasury will act; and the remainder of the order of succession is as follows: The Secretary of War, Attorney-General, Postmaster-General, Secretary of the Navy, and Secretary of the Interior. The acting President must, upon taking office, convene Congress. if not at the time in session, in extraordinary session, giving twenty days' notice. This act applies only to such Cabinet officers as shall have been appointed by the advice and consent of the Senate, and are eligible under the Constitution to the Presidency.

### How the Presidents Are Elected

Even the ablest politicians of the country have little more than a superficial knowledge of how Presidents are elected under the electoral system now in use. This feature of the Constitution gave its framers more trouble than any other section.

Properly speaking, there is no popular vote for President. There is only a vote for presidential electors. The President is elected by the States. Each State is given two votes to represent its sovereignty and as many other votes as it may be entitled to representatives: that is, the votes are distributed in proportion to its population. The State casts the vote; the people do not.

On Presidential election day, which occurs every four years on the Tuesday next after the first Monday in November, instead of voting directly for the President and Vice-President of the United States, the qualified voters of each State vote for as many electors as their State has Senators and Representatives in Congress. The names of the electors to be voted for are placed upon the various national tickets, and those elected constitute the Electoral College. After the election those elected meet in their respective States on the second Monday of January following, at the State capital, and ballot for President and Vice-President.

Separate lists are prepared, one copy of which is deposited in the mail and another sent by special messenger to the President of the Senate. The Senate then visits the House of Representatives, the President of the Senate occupying a seat with the Speaker of the House. The President of the Senate announces tellers on the part of the Senate, the Speaker of the House performing a like duty for that body.

The President of the Senate then breaks the seals of the package containing the lists and announces the votes, a note of which is made by the secretary. When this is concluded the result declares the next President and Vice-President.

### UNITED STATES NAVAL ENLISTMENT

The term of enlistment of all enlisted men of the navy is four years. Minors over the age of eighteen may be enlisted without consent of parents or guardians, but minors under, but claiming to be over eighteen years of age, are liable, if enlisted, to punishment for fraudulent enlistment. Only such persons shall be enlisted as can reasonably be expected to remain in the service. Every person, before being enlisted, must pass the physical examination prescribed in the medical instructions. Applicants for enlistment must be American citizens, able to read and write English, and when enlisted must take the oath of allegiance.

### NAVY AND MARINE CORPS PAY TABLE

NAVY (LINB)	Pay per annum*
Admiral of the navy	\$13,500
Rear-admirals—First nine	8,000
Second nine	6,000
Chiefs of bureaus	6,000
Captains	4,600
Judge-advocate general	4,000
Commanders	4,100
Lieutenant-commanders	3,000
Lieutenants	3,000
Lieutenants (junior grade)	2,000
Ensigns	2,140
Chief boatswains, gunners, carpenters, sail-makers	1,700
Midshipmen at sea	1,400
Midshipmen at academy	600
Major-general	8,000
Colonels	4,000
Lieutenant-colonels	3,500
Majors	3,000
Captains (line)	2,400
Captains (staff)	2,600
First lieutenants	2,000
Second lieutenants	1,700

<sup>\*</sup>On sea duty, or on shore duty beyond sea, 10 per cent increase.

Chaplains of or above the rank of lieutenant-commander get the pay and allowance of a lieutenant-commander; those who have rank of lieutenant, appointed prior to July 1, 1906, \$2,800; others according to rank in above table; naval constructors, \$3,200 to \$4,200; assistant naval constructors, \$2,000, or pay of rank according to above table; warrant officers, \$1,125 to \$2,250.

Petty officers and chief petty officers get a salary ranging from \$40 to \$92 per month.

First-class seamen get \$26 a month; seamen gunners, \$28; firemen, first-class, \$38; ordinary seamen, \$21; firemen, second-class, \$35, shipwrights, \$27; apprentice seamen, \$18; coal passers, \$24.

### UNITED STATES ARMY RECRUITING REQUIREMENTS

Applicants for first enlistment must be between the ages of eighteen and thirty-five years, of good character and temperate habits, able-bodied, free from disease, and must be able to speak, read and write the English language. Minors will not be enlisted.

For infantry and coast artillery the height must be not less than five feet four inches, and weight not less than one hundred and twenty (120) pounds and not more than one hundred and ninety (190) pounds.

For cavalry and field artillery the height must be not less than five feet four inches and not more than five feet ten inches, and weight not to exceed one hundred and sixty-five (165) pounds. No minimum weight is prescribed for these arms, but the chest measures must be satisfactory.

### UNITED STATES ARMY ENLISTMENT

The Army Act of August 24, 1912, prescribes a seven years' term of enlistment in the army after November 1, 1912, in lieu of the previous term of three years, the first four years with the colors in active service, and the remaining three years on furlough, without pay, and attached to the Army Reserve established by the same Act. The Army Reserves are subject to be called into active service only in the event of actual or threatened hostilities.

The monthly pay of recruits during the first enlistment ranges from \$15 to \$18. Additional pay of from \$1 to \$4 per month for continuous service is allowed during each enlistment period of four years, after the first, up to and including the seventh.

# SALARIES OF UNITED STATES OFFICERS Civil, Military and Naval

Salaries of the principal United States government officials are as follows: President, \$75,000; vice-president, \$12,000; cabinet officers, \$12,000 each; senators, \$7,500 each, with mileage; speaker of the house, \$12,000; representatives, \$7,500 each, with mileage; chief justice of the Supreme Court, \$15,000; associate justices, \$14,500 each; justices of Circuit courts, \$7,000 each. Effective March 4, 1907.

### Army Pay Table

		PAY	of offic	ERS IN A	CTIVE SEF	VICE
GRADE				Yearly Pay	*	
		First 5 years' service	After 5 years' service	After 10 years' service	After 15 years' service	After 20 years' service
General Lieutenant-General Major-General Brigadier-General		\$10.000 9.000 8,000 6,000	10 p. c.	20 p. c.	30 p. c.	40 p. c. a
Colonel (b) Lieutenant-Colonel (b) Major (b) Captain First Lieutenent Second Lleutenant		4,000 3,500 3,000 2,400 2,000 1,700	\$4,400 3,850 3,300 2,640 2,200 1,870	\$4,800 4,200 3,600 2,880 2,400 2,040	\$5,000 4,500 3,900 3,120 2,600 2,210	\$5,000 4,500 4,000 3,360 2,800 2,380
	PAY OF RETIRED OFFICERS					
GRADE		Yearly Pay				
		First 5 years' service	After 5 years' service	After 10 years' service	After 15 years' service	After 20 years' service
General Lieutenant-General Major-General Major-General Brigadier-General Colonel (b) Lieutenant-Colonel (b) Major (b) Gaptain First Lieutenant Second Lieutenant		\$7,500 6,750 6,000 4,500 3,000 2,625 2,250 1,800 1,500	\$3,300.00 2,887.50 2,475.00 1,980.00 1,650.00 1,402.50	\$3,600 3,150 2,700 2,160 1,800 1,530	\$3,750.00 3,375.00 2,924.40 2,340.00 1,950.00 1,657.44	\$3.750 3.375 3.000 2.520 2.100 1.785

<sup>\*</sup> Does not include allowances for quarters, etc.

Dental Surgeons have the rank and pay of first lieutenant,

Acting Dental Surgeons receive \$150 per month.

Chaplains have the rank and pay of major, captain and first lieutenant, respectively.

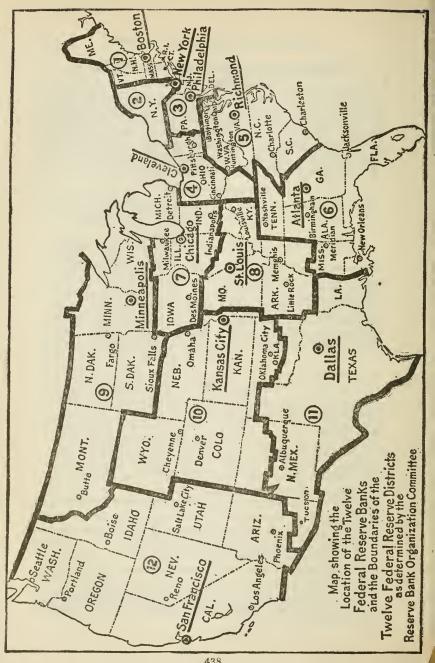
<sup>(</sup>a) Service increase of pay of officers below rank of brigadier-general cannot exceed 40 p. c. in all.

<sup>(</sup>b) The maximum pay of a colonel is \$5,000, of a lieutenant-colonel \$4,500, and of a major \$4,000.

Veterinary Surgeons receive the pay of second lieutenant with right to retirement.

Army Pay Clerks receive from \$1,125 to \$2,000 per year with right to retirement.

The pay of non-commissioned officers is from \$21 to \$99 per month, and of privates from \$15 to \$25 per month. Service outside the United States, except in Porto Rico, Panama and Hawaii, 10 per cent. additional for officers and 20 per cent. for enlisted men.



### RELIGIOUS DENOMINATIONS IN THE UNITED STATES

Denomination.	Members.	Denomination.	Members.
Adventists Baptists Brethren (River) Brethren (Plymouth) Catholles Catholle Apostolic	3,605 6,661 12,372,069 1,491	Friends. Jews Mormons Lutherans Menonites Methodists	143,000 310,500 2,173 047 59,274 6,477,224
Christian Science	3,084 782,500 1,430,015	Presbyterians Protestant Episcopal Reformed United Brethren Unitarians	385,038 277,352
Evangelicals		Universalists	52,944

### CREEDS IN THE WORLD

The following estimates, by Krose, are the latest that have been made by a competent authority, and refer to the religions of the world at the commencement of the twentieth century:—

Creeds.	No. of Followers.	Creeds.	No. of Followers.
Christianity Worship of Ancestors and Confucianism Hindooism Mohammedanism Buddhism.	253,000,000 210,000,000 202,000,000	Taoism Shintoism Judaism Polytheism Old Indian Religions Miscellaneous	11,000,00C

### CHRISTIANITY

Churches.	Total.	Churches.	Total.
Protestant Churches	167,000,000	Orthodox Russians Oriental Schism	109,000,000 6,500,000
Orthodox Greek Ch'rch	109,000,000		

		Christians
		373,975,951
53,479	3,608,466	8,329,849
		133,907,846
1		
		4,167 202
47,272 2,173,371	6,554,913	549,017,341
	1,736,464 134,149 53,479	059,644 034,149 53,479 1,736,464 220,394 2,726,053 3,608,466

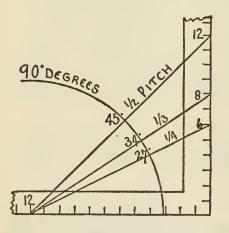
Out of the total population of the world, which amounts to 1,539 millions (according to Yuraschke), 35.7 per cent are Christians, 13.1 per cent Mohammedans, 0.7 per cent Jews, or, 762,102,000 are Monotheists against 776,000,000 who are Polytneists—i. e., nearly half of the population the world believe in the God.

### CARPENTER'S RULES

### ROOF FRAMING

Definition of Terms.—The "gable" is the triangular end of a common double-roofed building. By the "pitch" of a roof is meant the relation which the height of the ridge above the level of the roof-plates bears to the span, or the distance between the stude on which the roof rests. Thus a roof that is one-half as high as the width of the building is "half-pitch," one that is one-fourth as high as the width is "quarter-pitch," etc.

The following illustration from Hodgson's "Practical Treatise on the Steel Square," not only shows the most common pitches, but also gives the degrees:



"Most carpenters," says Mr. Hodgson. "know that half-pitch is 45 degrees, yet few know third-pitch is nearly 34, and quarter-pitch about 27 degrees.

"A building 24 feet wide (as the rafters come to the center) has a 12-foot run and half-pitch, the rise would also be 12 feet, and the length of the rafter would be 17 feet (the diagonal of 12). Length, cuts,

etc., could all be figured from the one illustration."

The Length of Rafters for the most common pitches can be found as follows from any given span:

To lengths thus obtained must be added amount of projection of rafters at the eaves

As rafters must be purchased of even lengths, a few inches more or less on their lengths will make a difference to the pitch so slight that it cannot be detected by the eye.

Example.—To determine the length of rafters for a roof constructed one-half pitch, with a span of 24 feet—24×.71=17.04; or, practically, just 17 feet. A projection of one foot for eaves makes the length to be purchased 18 feet.

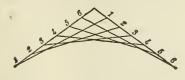
How to Find Bevels and Length of Rafters



How to Find the Length and Bevels of Rafters.

- 1. Bevels.—Place your steel square on a board (say the building is 40 feet long), with the corner 20 inches from the edge of the board one way and 7 inches the other, and mark it as shown in the above figure. The angle at c will be the bevel of the upper end, and the angle at d at the lower end of the rafter.
- 2. Length.—From a to b on the outer edge of the board is the length of the rafter. The 20 inches shows the 20 feet, or half the width of the building; the 7 inches the 7 foot rise. The distance from a to b, on the edge of the board, is 21 inches, two-twelfths and one-quarter of a twelfth (always use a square with inches on one side divided into twelfths), therefore this rafter will be 21 feet and  $2\frac{1}{4}$  inches long.

### How to Determine Curves for Brick and Stone Arches



Measure width required and draw the figure above indicated. If the points in the figures are equal on both sides, the curve will be an exact part of a circle.

### To Find the Area of a Gable End

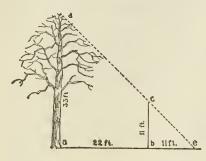
Multiply the width of the building by the height of the roof, and take one-half of the result. Or, if the roof is quarter-pitch, find the area by multiplying the width of the roof by  $\frac{1}{8}$  of itself.

### To Find Number of Feet of Stock Boards to Cover a House

Multiply the distance around the house by the height of the post, and add the area of the two gable ends to the result.

### How to Find the Height of a Tree

Measure off on the ground from the base of the tree the number of feet you desire your log to be in length (allowing



for the height of the stump), then measure back one-third of the distance and place there a pole as many feet long as this last measurement; let some one hold it from the height of prospective stump from the ground, then place your eye at the outer end of the line measured from the tree

and look over the pole towards the tree. The point where the eye strikes the tree is the height which will give you the log of the required length.

Example.—Suppose a log 33 feet long is wanted—measure off 33 feet out from the base of the tree, and then measure back again 11 feet. At this point (indicated by b in the cut), have some one hold an 11-foot pole at the height from the ground that the stump is to have; then put your eye at e, look over the top of the pole at c, and your eye will strike the tree at d, which will be 33 feet from a, the point where the tree is to be cut down.

### DEPARTMENT OF COMMERCE, WASHINGTON, D. C.

## FOURTEENTH CENSUS, 1920

### OFFICIAL CENSUS CITIES OF 7000 AND OVER

	1	1
Aberdeen, S. D.       14,537         Aberdeeen, Wash       15,337         Abilene, Tex       10,274         Ada, Okla       8,012         Adrian, Mich       11,878	Augusta       Me       14,114         Aurora       III       36,397         Austin       Minn       10,118         Austin       Tex       34,876         Bakersfield       Cal       18,638	Blue Island, Ill. 10,528 Bogalusa, La. 8,245 Boise, Idaho 21,393 Boston, Mass 748,060 Boulder Colo 10,989
Akron, Ohio. 208,435 Alameda, Cal. 28,806 Albany, Ala. 7,652 Albany, Ga. 11,555 Albany, N. Y. 113,344	Baltimore, Md	Bowling Green, Ky. 9,638 Bradford, Pa. 15,525 Braddock, Pa. 20,879 Brainerd, Minn. 9,591 Braintree, Mass. 10,554
Albert Lea, Minn. 8,056 Albion, Mich. 8,354 Albuquerque, N. M. 15,157 Alexandria, La. 17,510 Alexandria, Va. 18,060	Batavia, N. Y. 13,541 Bath, Me. 14,731 Baton Rouge, La. 21,782 Battle Creek, Mich. 36,164 Bay City, Mich. 47,554	Brazil, Ind. 9,293 Brennerton, Wash 8,918 Bsidgeport, Conn. 143,538 Bridgeton, N. J. 14,323 Bristol, Conn. 20,620
Alhambra, Cal.       9,096         Allentown, Pa.       73,502         Alllance, Ohio.       21,003         Alma, Mich.       7,542         Alpena, Mich.       11,101	Bayonne, N. J. 76,754 Beacon, N. Y. 10,996 Beardstown, Ill. 7,111 Beatrice, Nebr. 9,664 Beaumont, Tex. 40,422	Bristol, Pa. 10,273 Bristol, R. I. 11,375 Bristol, Tenn. 8,047 Brockton, Mass. 66,254 Brookline, Mass. 37,748
Alton, Ill. 24,682 Altoona, Pa. 60,331 Ambridge, Pa. 12,730 Americus, Ga. 9,010 Amsterdam, N. Y. 33,524	Beaver Dam, Wls. 7,992 Beaver Falls, Pa. 12,802 Bedford, Ind. 8,963 Bedlaire, Ohio. 15,061 Belleville, 1ll. 24,741	Brunswick, Ga. 14,413 Buffalo, N. Y. 506,775 Burlington, Iowa. 24,057 Burlington, N. J. 9,049 Burlington, Vt. 22,779
Anaconda, Mont. 11,668 Anderson, Ind. 29,767 Anderson, S. C. 10,535 Andover, Mass. 7,489 Ann Arbor, Mich. 19,516	Belleville, N. J. 15,696 Bellevue, Ky. 7,379 Bellevue, Pa. 8,198 Bellingham, Wash. 25,570 Belmont, Mass. 10,744	Burrillville, R. I. 8,606 Butler, Pa. 23,778 Butte, Mont. 41,611 Cadillac, Mich. 9,734 Cairo, Ill. 15,203
Annapolis, Md. 11,214 Anniston, Ala. 17,734 Ansonia, Conn. 17,643 Antigo, Wis. 8,451 Appleton, Wis. 19,561	Beloit, Wls. 21,284 Belvidere, Ill. 7,804 Bemidli, Minn. 7,080 Bemington, Vt. 9,982 Benton, Ill. 7,201	Cambridge, Mass.       109,694         Cambridge, Obio.       13,104         Cambridge, Md.       7,467         Camden, N. J.       116,309         Canadaigua, N. Y.       7,356
Amarillo, Tex. 15,494 Archbald, Pa. 8,603 Ardmore, Okla 14,181 Arlington, Mass. 18,646 Asbury Park, N. J. 12,400	Benton Harbor, Mich. 12,233 Rerkeley, Cal. 55,886 Berlin, N. H. 16,104 Berwick, Pa. 12,181 Berwyn, Ill. 14,150	Canonsburg, Pa.     10,632       Canton, Oido.     87,091       Cauton, Ill.     10,928       Cape Glrardeau, Mo. 10,252     18,640
Ashland, Ky. 14,729 Ashland, Ohio 9,249 Ashland, Wis. 11,331 Ashtabula, Ohlo 22,082 Asheville, N. C. 22,026	Bethlehem, Pa. 50,358 Reverly, Mass. 22,561 Bicknell, Ind. 7,635 Biddeford, Me. 18,008 Billings, Mont. 15,100	Carlisle, Pa.     10,916       Carnegle, Pa.     11,516       Carrick, Pa.     10,504       Carthage, Mo.     10,068       Carthage, Pa.     10,053
Astoria, Ore. 14,027 Atchison, Kan 12,630 Athens, Ga. 16,748 Athol, Mass 9,792 Atlanta, Ga. 200,616	Biloxi, Miss	Casper, Wyo
Atlantic City, N. J. 50,682 Attleboro, Mass. 19,731 Auburn, N. Y. 36,192 Auburn, Me. 16,085 Augusta, Ga. 52,548	Bloomfield, N. J. 22,011   Bloomigton, III. 28,638   Bloomington, Ind. 11,595   Bloomsburg, Pa. 7,819   Bluefield, W. Va. 15,191	Centralia, Wash.     7,549       Chambersburg, Pa.     13,171       Champaign.     11.     15,873       Chanute, Kan.     16,286       Charleroi, Pa.     11,510

Charles City, Iowa 7,350 Charleston, W. Va 39,608 Charleston, S. C 67,957 Charlotte, N. C 46,338 Charlottesville, Va 10,688	Danville, Ill 33,750 Danville, Va 21,539 Darby, Pa 7,922 Davenport, Iowa 36,727 Dayton, Ohio 153,839	Erie, Pa
Chattanooga, Tenn.       57,895         Chelsea, Mass.       43,184         Cheltenham, Pa.       11,015         Chester, Pa.       58,030         Chicago, III.       2,701,212	Dayton, Ky.     7,546       Decatur, Ill.     43,818       Dedham, Mass.     10,783       Deflance, Ohio     8,876       De Kalb, Ill.     7,871	Everett, Wash
Chicago Heights, Ill.       19,653         Chico, Cal.       8,872         Chicopee, Mass.       36,214         Chlcopee Falls, Wis.       9,130         Chillicothe, Obio.       15,831	Delaware, Ohio.       8,756         Del Rio, Tex.       10,589         Denison, Tex.       17,065         Denver, Colo.       256,491         Derby, Conn.       11,238	Fayetteville, N. C. 8,877 Fergus Palis, Minn. 7,581 Findley, Ohio. 17,015 Fitchburg, Mass. 41,029 Filnt, Mich. 91,599
Chippewa Falls, Wis. 9,130 Chisholm, Minn. 9,039 Cicero, Ill. 44,995 Cincinnati, Ohlo. 401,247 Circleville, Ohio. 7,045	Des Molnes. Iowa 126,468     Detroit, Mich 13,049     Dlckson, Pa 13,049     Dixon, Ill 8,191     Donora, Pa 14,131	Florence, S. C. 10,968 Florence, Ala. 10,529 Fond du Lac Wis. 23,427 Fort Collins, Colo. 8,755 Fort Dodge, Iowa. 19,333
Cisco, Tex	Dothan, Ala.     10,034       Douglas, Arlz.     9,916       Dover, N. H.     13,029       Dover, N. J.     9,817       Dover, Ohio.     8,191	Fort Madison, Iowa, 12,066 Fort Scott, Kan., 10,693 Fort Smith, Ark, 28,811 Fort Wayne, Ind. 86,549 Fort Worth, Tex., 106,482
Cleburn, Tex.       12,820         Cleveland, Ohio.       796,836         Cleveland Heights, O. 7,962       7,962         Clifton, N. J.       26,470         Clinton, Iowa       24,151	Drownwood, Tex. 8,223 Dublin, Ga. 7,707 Dubuque, Iowa 39,141 Du Bois, Pa. 13,681 Duluth, Minn. 98,917	Fostoria, Ohio. 9,987 Frankfort, Ky. 9,805 Frankfort, Ind. 11,585 Franklin, Pa. 9,970 Framlingham, Mass. 16,785
Clinton, Mass.       12,964         Clinton, Ind.       10,962         Coatesville, Pa.       14,515         Coffeyville, Kan.       13,452         Cohoes, N. Y.       22,987	Dunkirk, N. Y.     19,336       Dunmore, Pa.     20,250       Duquesne, Pa.     19,011       Duquoin, Ill.     7,285       Durant, Okla.     7,340	Freeport, III. 19,669 Freeport, N. Y. 8,599 Frederick, Md. 11,066 Fremont, Nebr. 9,570 Fremont, Ohio. 12,468
Collingswood, N. J.       8,714         Collinsville, Ith.       9,753         Colorado Spgs., Colo.       30,105         Columbia, S. C.       37,524         Columbia, Pa.       16,836	Durham, N. C. 21,719 Duryea. Pa. 7,776 East Chicago, Ind. 35,967 East Cleveland, Ohio. 27,292 Eastland, Tex. 9,368	Fresno, Cal. 44,616 Fulton, N. Y. 13,043 Gadsden, Ala. 14,737 Gainesville, Tex. 8,648 Galesburg, Ill. 23,785
Columbia,         Mo.         10,379           Columbus,         Ga.         31,125           Columbus,         Ohio.         237,031           Columbus,         Ind.         8,990           Columbus,         Miss.         10,501	East Liverpool, Ohlo. 21,411 East Moline, Ill 8,675 East Orange, N. Y 50,716 Easton, Pa 33,813 East Providence, R. I. 21,793	Gallon, Ohio.       7,374         Galveston, Tex.       44,255         Gardner, Mass.       16,960         Garfield, N. J.       19,381         Gary, Ind.       56,378
Concord, N. H.       22,167         Concord, N. C.       9,903         Conneaut, Ohio       9,343         Connersville, Ind       9,901         Conshohocken, Pa.       8,481	East St. Louis, Ill 66,740 East Youngstown, Oblo 11,237 Eau Claire, Wis. 20,880 Edwardsville, Pa. 9,027 Eldorado, Kan. 10,995	Gastonia, N. C. 12,871 Geneva, N. Y. 14,648 Glendale, Cal. 13,536 Glens Falls, N. Y. 16,638 Globe, Ariz. 7,044
Corning, N. Y.       15,820         Corpus Christi, Tex.       10,522         Corry, Pa.       7,228         Corsicano, Tex.       11,356         Cortland, N. Y.       13,294	Eligin, III	Gloucester, Mass. 22,947 Gloucester, N. J. 12,162 Gloversville, N. Y. 22,075 Goldsboro, N. C. 11,296 Goshen, Ind. 9,525
Coshocton, Ohio	Elmira, N. Y. 45,305 El Paso, Tex. 77,543 Elwood, Ind. 10,790 Elyria, Obio. 20,474 Emporia, Kan. 11,273	Grand Forks, N. D. 14,010 Grand Haven, Mich. 7,224 Grand Island, Nebr. 13,960 Grand Junction, Colo. 8,665 Grand Raplds, Mich. 137,634
Crawford, Ind.       10,139         Cumberland, Md.       29,837         Cumberland, R. I.       9,543         Dallas, Tex.       158,076         Danbury, Conn.       18,943	Endicott, N. Y. 9,300 Enfield, Conn. 11,708 Englewood, N. J. 11,617 Endid, Okla. 16,576 Ennis, Tex. 7,224	Grand Rapids, Wis. 7,243 Granite, Iil 14,757 Great Falls, Mont. 24,121 Greeley, Colo 10,883 Green Bay, Wis 31,017

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Greenfield, Mass. 15,462 Greensboro, N. C. 19,746 Greensburg, Pa. 15,104 Greenville, Ohio. 7,104 Greenville, Pa. 8,101	Jacksonville, Fla. 91,558 Jacksonville, III. 15,713 Jamestown, N. Y. 38,917 Janesville, Wis. 18,293 Jeanette, Pa. 10,627	Lexington, Ky. 41,534 Llma Ohio. 41,306 Llncoln, Ill. 11,882 Llncoln, R. I. 9,543 Lincoln, Nebr. 54,948
Greenville, Miss.       11,560         Greenville, S. C.       23,270         Greenville, Tex.       12,384         Greenwood, S. C.       8,703         Gretna, La.       7,197	Jefferson City, Mo. 14,067 Jeffersonville, Ind. 10,098 Jersey City. N. J. 297,864 Johnson City, N. Y. 8,587 Johnson City, Tenn. 12,442	Little Falls, N. Y. 13,029 Little Rock, Ark. 64,997 Lock Haven, Pa. 8,557 Lockport, N. Y. 21,308 Logan, Utah. 9,439
Griffin, Ga	Johnston City, Ill.       7,137         Johnstown, N. Y.       10,908         Johnstown, Pa.       67,327         Joilet, Ill.       38,405         Jonesboro, Ark.       9,384	Logansport, Ind. 21,626   Long Beach, Cal. 55,593   Long Branch, N. J. 13,521   Lorain, Ohio. 37,295   Los Angeles, Cal. 576,673
Hamtramack, Mich. 48,615 Hancock, Mich. 7,527 Hannibal, Mo. 18,950 Hanover, Pa. 8,664 Harrisburg, Ill. 7,125	Joplin     Mo     29,855       Junction     City     Kan     7.516       Juniata     7,660       Kalamazoo     Mich     48,858       Kane     Pa     7,283	Louisville, Ky. 234,891 Lowell, Mass. 112,759 Ludington Mich. 8,810 Ludlow, Mass. 7,470 Lynchburg, Va. 29,956
Harrisburg, Pa. 75,917 Harrison, N. J. 15,721 Hartford, Conn. 138,036 Harvey, Ill. 9,216 Hastings, Nebr. 11,647	Kankakee, Ill.     16,721       Kansas City, Kan     .101,177       Kansas City, Mo     .324,410       Keene, N. H.     .11,210       Kenmore, Ohio.     .12,683	Lynn, Mass.     99,148       Macon, Ga.     52,995       Madison, Wis     38,378       Mahanoy, Pa.     15,599       Malden, Mass.     49,103
Haverhill, Mass.     53,884       Hazelton, Pa.     32,277       Helena, Ark.     9,112       Helena, Mont     12,037       Henderson, Ky.     12,169	Kenosha, Wis     40,472       Kent, Ohio.     7,070       Kenton, Ohio.     7 690       Keokuk, Iowa     14,423       Kewanee, III.     16,026	Malone, N. Y.     7,556       Manchester, Conn.     18,370       Manchester, N. H.     78,384       Manistee, Mich.     9,694       Mankato, Minn.     12,469
Herkimer, N. Y. 10,453 Herrin, Idl. 10,986 Hibbing, Minn 15,089 Highland Park, Mich 46,499 Hoboken, N. J. 68,166	Key West, Fla.     19,039       Kingston, Pa.     8,952       Kingston, N. Y.     26,688       Kinston, N. C.     9,771       Kirksville, Mo.     7,213	Mansfield, Ohio.       27,824         Marblehead, Mass.       7,324         Marietta, Ohio.       15,140         Marion, Ohio.       27,891         Marion, Ind.       23,747
Holland,       Mich.       12,166         Holyoke,       Mass.       60,203         Homestead,       Pa.       20,452         Hopkinsville.       Ky.       9,696         Hoquiam.       Wash.       9,885	Kittanning, Pa. 7,153 Knoxville, Tenn. 77,818 Knoxville, Pa. 7,201 Kokomo, Ind. 30,067 Lackawanna, N. Y. 17,918	Marion, III.     9,582       Marlborough, Mass.     15,028       Marquette, Mich.     12,718       Marshfield, Wis.     7,394       Marshall, Tex.     14,271
Hornell, N. Y. 7,607 Hot Springs, Ark. 11,695 Houston, Tex. 138,076 Hudson, Mass. 7,607 Hudson, N. Y. 11,745	Laconia, N. H. 10,897 La Crosse, Wis. 30,363 Lafayette, La. 7,855 Lafayette, Ind. 22,486 La Grange, Ga. 17,033	Marshalltown, Iowa 15,731 Martinsburg, W. Va 12,515 Martins Ferry, Ohio 17,428 Mason City, Iowa 20,065 Massillon Ohio 17,428
Huntington, Ind.       14,000         Huntington, Pa       7,051         Huron, S. D       8,302         Hutchivson, Kans       23,298         Idaho Falls, Idaho       8,064	Lake Charles     La     13,088       Lakeland     Fla     7,062       Lake Wood     Ohio     41,732       Lancaster     Pa     53,150       Lancester     Va     9,757	Mattoon, 111.       13,552         Maynard, Mass.       7,086         Maywood, 11.       12,072         McComb, Miss.       7,775         McKeesport, Pa.       45,975
Hion, N. Y	Lancester, Ohio.       14,706         Lansing.       Mich.       57,327         Lansford.       Pa.       9,625         La.       Porte.       Ind.       15,158         Larksville,       Pa.       9,438	McKees Rocks, Pa. 13,713 Meadville, Pa. 14,568 Mechanicsville, N. Y. 8,166 Medford, Mass. 39,038 Melrose, Mass. 18,204
	LaSalle, Ill.     13,050       Latrobe, Pa     9,413       Laurel, Miss     13,037       Lawrence Mass     94,270       Lawrence, Kan     12,456	Melrose Park, Ill.       7,147         Memphis, Tenn.       162,351         Menasha.       Wis.       7,214         Meridian City, Miss.       23,399         Meriden, Conn.       29,867
Ishpeming, Mich.     10,500       Ithaca, N. Y.     17,004       Jackson, Mich.     48,374       Jackson, Tenn.     18,860       Jackson, Miss.     22,817		Methuen, Mass.     15,189       Miami, Fla.     29,549       Michigan City, Ind.     19,457       Middlesboro, Ky.     8,041       Middletown, Conn.     13,638

Middletown, N. Y. 18,420 Middletown, Ohio. 23,594 Miles, Mont. 7,937 Milford, Mass. 13,471 Millvillo, N. 14,691	New Philadelphia         O. 10,718           Newport         Ky         29,317           Newport         R.         1         30,255           Newport         News         Va         35,596           Newton         Kan         9,781	Peabody       Mass       19,552         Peekskill       N       Y       15,868         Pekin       Ill       12,086         Pendelton       City       Fla       7,387         Pensacola       Fla       31,035
Milton, Mass. 9,382 Milton, Pa. 8,638 Milwaukee, Wis. 457,147 Minersville, Pa. 7,845 Minneapolis, Minn. 380,582	Newton, Mass	Peoria, Ill.       79,121         Perth Amboy, N. J.       41,707         Peru, Ill.       8,869         Peru, Ind.       12,561         Petersburg, Va.       31,002
Minot, N. D. 10,476 Mishawaka, Ind. 15,195 Missoula, Mont. 12,668 Mitchell, S. D. 8,478 Mt. Carmel, Ill. 7,456	Niles, Ohio.       13,080         Norfolk, Nebr.       8,634         Norfolk, Va.       115,777         North Adams, Mass.       22,282         Northampton, Mass.       21,951	Philadelphia, Pa. 1,823,158 Phillipsburg, N. J. 16,923 Picher, Okla. 9,676 Pine Bluff, Ark. 19,280 Piqua, Ohio. 15,348
Mt. Carmel, Pa.       17,469         Mt. Clemens, Mich.       9,488         Mt. Vernon Ohlo.       9,237         Moberly, Mo.       12,789         Mobile, Ala.       60,151	North Braddock, Pa. 14,928 Northbridge, Mass 10,174 North Little Rock, Ark 14,048 North Platte, Nebr 10,466	Pittsburg, Kan.       18,052         Pittsburg, Pa.       588,198         Pittsfield, Mass.       41,751         Pittston.       Pa.       18,052         Plainfield, N.       27,700
Moline, Ill.       30,709         Monessen, Pa.       18,179         Monitowac, Wla.       17,563         Monmouth, Ill.       8,116         Monongahela, Pa.       8,688	North Tonawanda, N. Y. 15,482 Norwalk, Conn. 27,743 Norwalk, Ohio. 7,379 Norwich, Conn. 22,304 Norwich, N. Y. 8,269	Plattsburg, N. Y. 10,909 Plymouth, Pa. 16,500 Plymouth Mass. 13,032 Pomona, Cal 13,505 Ponca, Okla. 7,051
Monroe, La	Norwood, Mass. 12,627 Norwood, Ohlo. 24,966 Nutley, N. J. 9,421 Oakland, Cah. 216,361 Oak Park, Ill. 39,830	Poplar Bluff, Mo 8,042 Port Arthur, Tex 22,251 Port Chester, N. Y. 16,573 Port Huron, Mich. 25,944 Port Jarvis, N. Y. 10,171
Montpelier, Vt 7,125 Morgantown, W. Va 12,117 Moundsville, W. Va. 10,669 Mount Vernon, Ill 9,815 Mount Vernon, N. Y. 42,726	Oelwein, Iowa	Portland, Maine. 69,196 Portland, Ore 258,288 Portsmouth, N. H. 13,569 Portsmouth, Ohio. 33,811 Pontiae, Mich. 34,273
Muncie, Ind	Old Forge, Pa     12,237       Olean, N. Y.     20,506       Olympla, Wash     8,537       Olyphant, Pa     10,236       Omaha, Nobr     191,601	Pottstown, Pa. 17,431 Pottsville, Pa. 21,785 Poughkeepsie, N. Y. 35,000 Princeton, Ind. 7,132 Princeton, Mass. 41,534
Muskogee, Okla. 30,277 Nantocoke Pa. 22,614 Nashua, N. H. 28,379 Nashvilie, Tenn. 118,342 Natchez, Miss. 12,608	Oneida, N. Y. 10,541 Oneonta, N. Y. 11,582 Ontario, Cal. 7,280 Orangeburg, S. C. 7,290 Orange City, N. J. 33,268	Providence, R. I
Naugatuck, Conn. 15,051 Needham, Mass. 7,012 Neenah, Wis. 7,171 Negaunee, Mich. 7,419 New Albany, Ind. 22,992	Orlando, Fla. 9,282 Oshkosh, Wis. 33,162 Oskaloosa, Iowa. 9,427 Oswego, N. Y. 23,626 Ottawa, Ill. 10,816	Quincy,     Ill.     35,978       Quincy,     Mass.     47,611       Racine,     Wis.     58,593       Rabway,     N.     J.     11,042       Raleigh,     N.     C.     24,418
Newark, N. J.       415,609         Newark, Ohio.       26,718         New Bedford, Mass.       121,217         Newbern, N. C.       12,198         New Brighton, Pa.       9,361	Ottawa, Kan. 9,018 Ottumwa, Iowa. 23,003 Owatonna, Minn 7,252 Owosso, Mich. 12,575 Paducah, Ky. 24,735	Ranger, Tex.     16,205       Rankin, Pa.     7,301       Ravenna, Ohio.     7,219       Reading, Mass.     7,424       Reading, Pa.     107,784
New         Britain         Conn.         59,316           New         Brunswick         N.         Y.         32,779           Newburgh         N.         Y.         30,366           Newburyport         Mass         15,618           New         Castle         Ind         14,458	Palmer, Mass.       9,896         Palmertown, Pa.       7,168         Paris, Ill.       7,985         Paris, Texas.       14,939         Parkersburg, W. Va.       20,039	Redlanda, Cal.     9,571       Red Wing, Minn.     8,637       Rensselaer, N. Y.     10,823       Revere, Mass.     28,823       Richmond, Cal.     16,843
New Castle, Pa.         44,938           New Haven, Conn.         162,519           New Kensington, Pa.         11,887           New London, Conn.         25,688           Newman, Ga.         7,037	Parsons, Kana. 16,028 Pasadena, Cal. 45,354 Passaic, N. J. 63,824 Paterson, N. J. 135,866 Pawtucket, R. I. 64,248	Richmond, Ind. 26,765 Richmond, Va. 171,667 River Rouge, Mich. 9,822 Riverslde, Cal. 19,341 Rochester, N. H. 9,673

Rochester, N. Y.       .295,850         Rockford, III.       .65,651         Rock Hill, S. C.       8,809         Rock Island, III.       .35,177         Rockland, Maine       8,109	South Norfolk, Va 7,724 South Pasadena, Cal 7,648 South Portland, Me 9,254 Spartanburg, S. C 22,638 Spokane, Wash104,437	Uniontown, Pa. 15,609 Urbana, Ill. 10,244 Urbana, Ohio 7,621 Utlca, N. Y 94,156 Valdosta, Ga. 10,783
Rockville, Conn.       7,726         Rocky Mount, N. C.       12,742         Rome, Ga.       13,252         Rome, N. Y.       26,341         Rosedale, Kan.       7,674	Springfield, Ill. 59,183 Springfield, Mass. 129,563 Springfield, Mo. 39,631 Springfield, Ohio 60,840 St. Albans, Va. 7,588	Vallejo, Cal.       16,853         Vancouver, Wash       12,637         Vandergrift       Pa       9,531         Van Wert, Ohlo       8,100         Venice, Cal.       10,385
Rumford, Me. 7,016 Rutherford, N. J. 9,497 Rutland, Vt. 14,954 Saeramento, Cal. 65,857 Saginaw, Mich. 61,903	Stanford, Conn.       35,096         Statesville, N. C.       7,895         Stauton, Va.       10,617         St. Charles, Mo.       8,503         St. Cloud, Minn.       15,873	Vicksburg, Miss.     17,931       Vincennes, Ind.     17,210       Virginia, Minn.     14,022       Wabash, Ind.     9,872       Waco, Tex.     38,500
Salamanea, N. Y.       9,276         Salem, Mass.       42,529         Salem, N. J.       7,435         Salem, Ohio.       10,305         Salem, Ore.       17,679	Steelton, Pa.       13,428         Sterling, Ill.       8,182         Steubenville, Ohio.       28,508         Steveus Point, Wis.       11,371         Stillwater, Minn.       7,735	Wakefield, Mass.       13,010         Walla Walla, Wash.       15,50a         Waltham, Mass.       30,915         Warren, Pa.       14,256         Warren, Ohio.       27,050
Salina, Kan.       15,085         Salisbury, N. C.       13,884         Salisbury, Md.       7,502         Salt Lake City, Utah 118,110         San Autonio, Tex.       161,379	St. Joseph, Mich.       7,251         St. Joseph, Mo.       77,939         St. Louis, Mo.       773,000         Stockton, Cal.       40,296         Stoneham, Mass.       7,873	Warren, R. I. 7,841 Warwick, R. I. 13,481 Washington, D. C. 437,571 Washington, Ind. 8,742 Washington, Pa. 21,480
San Bernardine, Cal.       18,721         San Diego, Cal.       74,683         Sandusky, Ohio.       22,897         San Fraucisco, Cal.       508,410         Sanford, Me.       10,691	St. Paul, Minn.       234,595         St. Petersburg, Fla.       14,237         Suffolk, Va.       9,123         Summit, N. J.       10,174         Sumter, S. C.       9,508	Washington Court       7,962         House, Ohio       7,962         Waterbury, Conn       91,715         Waterloo, Iowa       36,230         Watertown, N. Y       31,285
San Jose, Cal	Sunbury     Pa     15,721       Superior     Wis     39,624       Swampscott     Mass     8,101       Swissvale     Pa     10,908       Syracuse     N     171,917	Watertown, S. D.       9,400         Watertown, Wis.       9,299         Waterville, Me.       13,351         Watervilet, N. Y.       16,073         Waukegan, Ill.       19,226
Santa Monica, Cal.       15,252         Santa Rosa, Cal.       8,758         Sapulpa, Okla.       11,634         Saratoga Springs, N. Y.       13,181         Saugus, Mass.       10,874	Tacoma, Wash.     96,965       Tamaqua, Pa.     12,363       Tampa, Fla.     51,252       Tarentum, Pa.     8,925       Taunton, Mass.     37,137	Waukesha, Wis.       12,558         Wausau, Wis.       18,661         Waxahachie, Tex       7,958         Wayeross, Ga       18,068         Waynesboro, Pa       9,720
Sault Sainte Marie,       12,096         Mich.       12,096         Savannah,       Ga.       83,252         Sayre,       Pa.       8,078         Schenectady,       N.       Y.       88,723	Taylor, Pa.       9,876         Temple. Tex.       11,023         Terre Haute, Ind.       66,083         Terrell, Tex.       8,349         Texarkana, Ark.       8,251	Webb City, Mo.       7,807         Webster, Mass.       13,258         Wellington, Kan.       7,048         Wellsville, Ohio.       8,849         West Allis, Wis.       13,765
Scranton, Pa     137,783       Seattle, Wash     315,652       Selma, Ala     15,607       Seymour, Ind     7,348       Shamokin, Pa     21,204	Texarkana, Tex.     11,480       Tiffin, Ohio.     14,375       Titusville.     Pa.     8,432       Toledo, Ohio.     243,109       Tonawanda, N. Y.     10,068	West Chester, Pa. 11,717 Westerly, R. I. 9,952 Westfield, N. J. 9,026 West Frankfort, Ill. 8,478 West Hammond, Ill. 7,492
Sharon, Pa.       21,747         Sharpsburg, Pa.       8,921         Shawnee, Okla.       15,438         Sheboygan, Wis.       30,955         Shenandoah, Pa.       24,726	Topeka, Kan       50,022         Traverse City, Mich       10,925         Trenton, N. J       119,289         Trinldad, Colo       10,906         Troy, N. Y       72,013	West Haven, Conn 12,369 West Hoboken, N. J., 110,068 West New York, N. J. 29,926 West Orange, N. J 15,573 West Palm Beach, Fig. 8,659
Sheridan, Wyo.       9,175         Sherman, Tex.       15,031         Shreveport, La.       43,874         Sidney, Ohio.       8,590         Sioux City, Iowa       71,227	Troy.         Ohio.         7,260           Tucson,         Ariz.         20,292           Tulsa,         Okla.         72,075           Tupolo,         Miss.         10,329           Turtle         Creek,         Pa.         8,138	West Park, Ohio
Sioux Falls, S. D 25,176 Somerville, Mass 93,091 South Amboy, N. J 7,897 Southbridge, Mass 14,245 South Milwaukee, Wis 7,598	Tuscaloosa, Ala. 11,996 Twin Falls, Idaho: 8,324 Two Rivers, Wls. 7,305 Tyrose, Pa. 9,084 Union, N. J. 20,651	Wheeling, W. Va. 54,322 Whiting, Ind. 10,145 Whittier, Cal. 7,997 Wichita, Kan. 72,128 Wichita Falls, Tex. 40,079

Wilkes-Barre, Pa 73,833 Williamsport, Pa 36,198 Willimantic, Conn 12,330	Windler, Pa. 9,462 Winona, Minn. 19,143 Winsted City, Conn. 8,248 Winston- Salem, N. C. 48,395	Worcester, Mass179,741 Wyandotte, Mich13,851 Xenia, Ohio9,110
Wilmington, N. C 33,372 Wilson, N. C 10,653 Winchester, Ky 7,866	Winthrop, Mass. 15,446 Winton, Pa. 7,583 Woburn, Mass. 16,574 Woodlawn, Pa. 12,495 Woonsocket, R. I. 43,496	York, Pa

### CENSUS GAINS BY STATES FOR LAST DECADE

Following are the 1920 census figures for the various states according to their present rank. The figures for 1910 and the standing of the States at that time also are shown.

	1920	1910	1910		1920	1910	1910
	Pop.	Pop.	Rank		Pop.	Pop. 1	Rank
New York1	0,384,144	9,113,614		8. C	1,683,662	1,515,400	26
	8,720,159	7,665,11	2	W. Va		1,221,119	28
	6,485,098	5,638,59		Maryland	1,449,610	1,295,346	27
	5,759,368	4,767,12		Conn	1,380,385	1,114,756	31
	4,661,027	3,896,542		Washington.	1,356,316	1,141,990	30
	3.852.356	3,366,410	6 6	Nebraska	1,295,502	1,192,214	29
Michlgan	3,667,222	2,810,173		Florida	966,296	752,619	33
	3,426,536	2,377,549		Colorado	939,376	799,024	32
	3,403,547	3,293,338	5 7	Oregon	793,389	672,765	35
New Jersey.	3.155,374	2,537,167		Maine	768,014	743,371	34
	2,930,544	2,700,870		N. Dakota	645,730	577,056	37
	2,894,683	2,609,121		S. Dakota	635,839	583,888	36
Wisconsin	2,631,839	2,333,860	13	Rhode Isl	604,379	542,610	38
N. C	2,556,486	2,206,28	16	Montana	547,593	376,053	40
Kentucky	2,416,013	2,289,903	5 14	Utah	449,446	373,351	41
	2,403,630	2,224,77	15	New Hamp.	443,083	430,572	39
Minn,	2,386,371	2,075,708	3 19	Iduho	431,826	325,594	44
Alabama	2,347,295	2,138,09:	18	N. Mex	360,247	327,301	43
Tenn	2,337,459	2,184,789	17	Vermont	352,421	355,956	42
Virginia	2,306,361	2,061,61	2 20	Arizona	333,273	204,354	45
Oklahoma	2,027,564	1,657,15	5 23	Delaware	223,003	262,322	46
Lonisiana	1,797,798	1,656,388		Wyoming	194,402	145,965	47
Mississippl .	1,789,384	1,797.11	1 21	Nevada	77,407	81,875	48
Kansas	1,769,257	1,690,949	22	District Col.	437,571	331,069	
Arkansas	1,750,995	1,574,449		-			-
				Total10	05,683,108	91,972,266	

SPECIAL-The 1920 population of continental United States was announced as 105.683.108 by the census bureau today. This is an increase of 13.710.842, or 14.9 per cent since 1910.

Approximately 12,250,000 people are living in the country's outlying possessions. This would bring the population of the whole United States up to about 118,000,000.

From Country to City.

"The figures of the present census also show that the trend of population from the country to the city has become greatly accentuated since 1910 and that, for the first time in the country's

accentuated since 1910 and that, for the first time in the country's history, more than half the entire population is now living in urban territory as defined by the census bureau.

"That is to say, of the 105.683.108 persons enumerated in the fourteenth census, preliminary tabulations show that 54.816,209, or 51.9 per cent, are living in incorporated places of 2,500 inhabitants or more, and 50,866,899, or 48.1 per cent, in rural territory. At the census of 1910 the corresponding percentages were 46.3 and 53.7 respectively, showing a loss of 5.6 per cent in the proportion of the population living in rural territory.

# PARCEL POST SYSTEM OF THE UNITED STATES

The Parcel Post System was authorized by an Act of Congress, approved August 24, 1912, and became effective January 1, 1913. By this act all fourth-class matter is placed under newly established rules and is extended to embrace farm and factory products and all mailable matter not included by law in either the first, second or third-class not exceeding fifty pounds in weight, nor greater in size than eighty-four inches in length and girth combined. Extended to include books after March 16, 1914; also seeds, plants, etc.

Mailable Matter.—Harmful articles, which from their form or nature, might, unless properly secured, destroy, deface or otherwise damage the contents of the mail-bag or harm the person of any postal employe, may be transmitted in the mails only when packed in accordance with the postal regulations.

Butter, lard and perishable articles, such as fish, fresh meats, dressed fowls, vegetables, fruits, berries, and articles of similar nature which decay quickly, when so packed or wrapped as to prevent damage to other mail matter, will be accepted for local delivery, that is, for delivery to be made in the same town as that in which the sender lives, or in its suburbs, reached by rural free delivery.

Butter, lard, or any admissible greasy or oily substance intended for delivery at offices beyond the first zone must be packed in accordance with regulations, which regulations can be learned by inquiry at any postoffice or postal station, and also regulations as to liquids.

Vegetables and fruits which do not decay quickly will be accepted for mailing to any zone if packed so as to prevent damage to other mail matter.

Eggs will be accepted for local delivery when so packed in a basket or other container as to prevent damage to other mail matter, and will be accepted for mailing regardless of distance when each egg is wrapped separately and surrounded with excelsior, cotton, or other suitable material, and packed in a container made of double corrugated pasteboard, metal, wood, or other suitable material in such manner as to place each egg on its end to prevent them from striking together or against the side or top of the container, with an outer cover of double corrugated pasteboard, metal, wood, or other suitable material, and wrapped so that nothing can escape from the package. Must be marked "Eggs—this side up."

Preparation for mailing.—Manufacturers or dealers intending to transmit articles in considerable quantities should submit to the Postmaster for approval a specimen of parcel showing the manner of packing.

Parcels must be prepared for mailing in such manner that the contents can be easily examined. A parcel will not be accepted for mailing unless it bears the name and address of the sender preceded by the word "From."

What may be written on the wrapper.—In addition to the name and address of the sender, which is required, it is permissible to write or print on the covering of a parcel, or on a tag or address label attached to it, the occupation of the sender, and to indicate in a small space by means of marks, letters, numbers, names or other brief description, the character of the parcel, but ample space must be left on the address side for the full address in legible characters and for the necessary postage stamps. Inscriptions such as "Merry Christmas," "Please do not open until Christmas," "Happy New Year," "With best wishes," and the like, may be placed on the covering of the parcel. A simple manuscript dedication or inscription may be written on blank leaves or cover of any book.

Inclosures.—There may be inclosed a written or printed invoice showing names and addresses of sender and addressee; name and quantities of articles enclosed, with statement of price, style, stock, number, size and quality of the articles, order of file number, date of order and date and number of shipment; and the initials or name of the salesman, packer, or checker.

Fragile articles, such as millinery, toys, musical instruments, etc., and articles consisting wholly or in part of glass, or contained in glass, must be securely packed and the parcel stamped or labeled "Fragile." Parcels containing perishable articles must be marked "Perishable."

Limit of Weight and Size.—If a parcel exceeds twenty pounds in weight or is greater in size than eighty-four inches in length and girth combined, it will be refused except for delivery in first or second zone, when weight may be fifty pounds.

Nailed Boxes.—Parcel post mail may be inclosed in boxes to which the lids are nailed or screwed, provided the lids can be readily removed with a chisel or screw driver for examination of contents.

C. O. D. Parcels.—Where postage is fully paid, the sender may have price and charges collected from payee for fee of ten cents in stamps affixed, provided amount collected does not exceed \$100, and such parcel may be insured to amount of \$50 without additional charge. C. O. D. parcels will be accepted for mailing only at a money-order office and when addressed to a money-order office.

Remailed and Forwarded Parcels.—If a parcel is remailed or forwarded, payment of additional postage at the same rate which would be chargeable if it were mailed originally at the forwarding office will be made. In such case the stamps will be affixed by the last postmaster to handle it.

Where Parcels Must Be Posted.—Parcels of books, seeds and plants, weighing more than eight ounces, and parcels of other fourth-class matter weighing more than four ounces, must be mailed at a post office or branch station or delivered to a carrier authorized to receive it. Smaller parcels may be deposited in letter or package boxes.

Rates of Postage.—On and after January 1, 1914, the limit of weight of parcels of fourth-class mail for delivery within the first and second zones shall be increased from 20 to 50 pounds. The rate of postage on parcels exceeding four ounces in weight shall be five cents for the first pound and one cent for each additional two pounds or fraction thereof when intended for local delivery, and five cents for the first pound and one cent for each additional pound or fraction thereof when intended for delivery at other offices within the first and second zones.

Parcels Weighing Four Ounces or Less are mailable at the rate of one cent for each ounce or fraction of an ounce, regardless of distance. Parcels weighing more than four ounces are mailable at the pound rates shown in the following table, a fraction of a pound being considered a full pound. For rates on books, seeds, etc., see page 454.

The Parcel Post Map is divided into eight zones, each of which is divided into a number of "units of area" or quadrangles, each a half a degree of latitude by half a degree of longitude square. There are 5,803 units in the country. If mailing to a point within the local unit or within any of the eight units touching the sides of that unit, the rate is that specified per pound for the first zone.

If the destination of the package is outside this first zone, draw a circle with a radius of 150 miles from the center of the home unit and if the destination is inside this circle or within the extreme boundaries of any unit intersected by the circle the rate for the second zone applies. By the same procedure the location of post offices for parcel post purposes may be fixed in the third zone by extending the radius to 300 miles from the center of the home unit; for the fourth zone the radius is 600 miles; the fifth, 1,000 miles; the sixth, 1,400 miles; the seventh, 1,800 miles, and the eighth includes all outside the seventh zone.

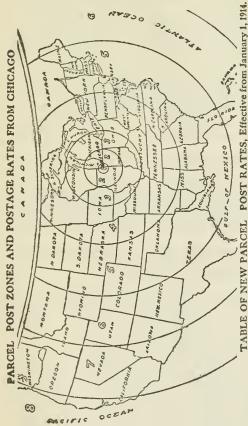
Alaska, Hawaiian and Philippine Islands, etc.—The eighth zone rate of 12 cents for each pound or fraction thereof on all parcels weighing over 4 ounces (except books, seeds, plants, etc., weighing 8 ounces or less) applies (1) between the U. S. and the Hawaiian Islands; (2) between the U. S. and the postal agency at Shanghai; (3) between any two points in Alaska and between any point in Alaska and any point in the U. S.; (4) between the U. S. and the Canal Zone; (5) between the U. S. and the Philippine Islands; (6) to, from, or between Guam, Tutnila, and Manua and other islands of the Samoan group east of longitude 171° west of Greenwich, and the U. S. and its other possessions; (7) between the U. S. and its naval vessels stationed in foreign waters.

Undelivered Parcels will be advertised either by publication or by posting a list in the post office and will be held for one month.

Insurance of Parcels.-A mailable parcel on which the

postage is fully prepaid may be insured against এ প্রার্থ ইয়েন্ত্র বির্থিত loss in an amount equivalent to its actual value, ন জ but not to exceed \$5, on payment of a fee of = \ \frac{1}{2} \ \frac{1}{ payment of fee of 5 cents, not to exceed \$50 on payment of a fee of 10 cents, or not to exceed 181b. 1 \$1.25 \$2.55 \$5.5 \$100 on payment of a fee of 25 cents, in stamps

to be affixed.



\$ (9) \$ (10) \$ (11) \$ (12) \$ (13) \$ (14) \$ (15) \$ (16) \$ (17) \$ (18) \$ ( 111128888888 1199824624 89.84.26.15.10 786 32 23 33 8 1b. 31b. 41b. 51b. 61b. 22222 21b. 1st local rate \$
1st zone rate
2nd
3nd
4th
5th
6th
7th ZONE

20 pounds see next pag

weighing

For rates

818888888888

Registration of Parcels.—Fourth class (parcel post) mail cannot be registered, but may be insured. Parcels addressed to foreign countries may be registered, but cannot be sent as insured parcels post mail.

### NEW POSTAGE RATES AND LIMIT OF WEIGHT.

On and after January 1, 1914, the limit of weight for delivery within the first and second zones shall be 50 pounds;

to all other zones 20 pounds.

Parcels weighing more than 8 ounces containing books, seeds, plants, cuttings, bulbs, roots and scions, parcels of miscellaneous printed matter weighing more than 4 pounds, and all other parcels of fourth-class matter weighing more than 4 ounces are chargeable, according to distance or zone, at the pound rates shown in the foregoing table.

Books, Seeds, Plants, etc.—Parcels weighing 8 ounces or ress, containing books, seeds, plants, cuttings, bulbs, roots or scions, 1 cent for each two ounces or fraction thereof, re-

gardless of distance. See Rates of Postage, page 451.

For parcels weighing over 20 pounds, up to and including 50 pounds, for local rate\* add 1 per cent for each additional 2 pounds.

For first and second zones add 1 cent for each additional

1 pound.

\*The rate of local delivery shall apply to all parcels mailed at a postoffice from which a rural route starts for delivery on such route, or mailed at any point on such route for delivery at any other point thereon or at the office from which the route starts, or on any rural route starting therefrom, and on all matter mailed at a city carrier office, or at any point within its delivery limits, for delivery by carriers from that office or at any office for local delivery.

# HOW TO DRESS SHOP WINDOWS ATTRACTIVELY

The art of dressing shop windows attractively may appropriately be termed "auto-salesmanship," for by its means the retail merchant is enabled to display his wares to such

an advantage that they sell themselves.

The shop window is an index to the store. It goes without saying that the object of window dressing is to attract attention. As the number of people who pass a store is largely in excess of those entering it, it is at once plainly evident that, like the index to a book, the windows afford the quickest means of getting an idea of the contents of the store by those who are not its regular patrons. Most people go upon the streets with a purpose in view, which often may be the purchase of just such goods as you carry; to many such a handsomely

dressed window is an irresistible invitation to enter and inducement to buy.

The educational features of window dressing are admitted. In matters of taste it is the eye which must first be trained, for the sense of sight alone decides upon the fitness and harmony of material arrangements. It is not to be doubted that taste and ideas of appropriateness have been vastly improved by the efforts of shopkeepers. There are many matters that window dressing helps to decide, especially in regard to decorative effects, and from hints thus obtained many a home is made more comfortable and attractive.

Artistic show windows create a desire for the goods by so displaying them that their merits and beauties are chiefly conspicuous and their desirability at once apparent.

Things to be avoided.—In dressing a window avoid crowding; no matter how fine and desirable goods are, their merits will not show to advantage in a huddled medley. Another thing to avoid is incongruity. Because certain articles are pretty or useful, do not imagine their beauty or evident utility will be enhanced by throwing them together. Many things seem massy and weighty, while others of equal size, perhaps, appear light and airy. Don't put massive looking objects together unless you wish to secure an appearance of heaviness; don't mass light, fragile objects unless you want to deprive them of the quality of durability; don't put solid articles with fragile ones, as it only emphasizes the heaviness of the one and the frailty of the other.

Things to be observed.—Dress your window on an ascending scale as it were, putting two or three heavy articles as a foundation, and from that central idea work out a light and attractive theme. Have a keynote of color and stick to it. The rainbow is a thing of beauty as it spans the heavens with its prismatic arch, perfect alike in its symmetrical form and harmonious tints, as it lies against a background of gray, somber clouds; but don't fancy that rainbow colors are always desirable.

### 1920 FEDERAL INCOME AND WAR TAX LAWS

ESSENTIAL PROVISIONS OF THE LAW, RULINGS AND REGULATIONS

Present Federal Internal Revenue Taxes are properly referred to as War Taxes, because the very high rates of tax imposed and the wide field of subjects covered are directly due to the extraordinary need for revenue resulting from the war. The War Taxes are imposed by the Revenue Act of 1918, enacted February 25, 1919; this law applies to all future years until repealed. All the federal legislation provided for the taxes on incomes and profits and the war taxes on transactions and commodities is collected and codified by this one law. The statute, however, is only the foundation; the practical application of the law depends upon the rulings of the Treasury Department, which prescribes the details of interpretation and administration.

Previous Legislation.—In 1913, after the adoption of the Sixteenth Amendment removing certain constitutional restrictions upon income taxation, a general law was adopted taxing individuals as well as corporations. This was revised and extended by the Revenue Law of 1916, and again by the Revenue Law of 1917, which introduced the Excess Profits Tax. All these taxes, and the new War Profits Tax, were re-enacted by the 1918 law, with increase in rates

and with many additional features.

The Secretary of the Treasury and the Commissioner of Internal Revenue are expressly authorized to make rules and regulations to carry out the provisions of the law and collect the tax. Within the limits of the authority conferred, the regulations have all the force and effect of law and are binding upon the taxpayer to the same extent as the statute itself.

The statute distinguishes between the Income Tax upon individuals, the Income Tax upon corporations, and the Excess Profits Tax. The Excess Profits Tax applies only to corporations, and to similar associations which are classified as corporations under the tax law. Personal service corporations and partnerships are not subject to any tax,

but must make returns.

Persons Subject to the Tax.—The income received by an individual is not subject to the Excess Profits Tax. The Income Tax is not limited to income from business, but applies to every person receiving from any source whatever a net income in excess of the exemptions. Not only citizens and aliens residing in the United States, but also non-resident aliens receiving income from this country and

citizens residing abroad, without regard to the source of their income, are covered by the law. Married women and

persons not arrived at legal age are taxed.

The Personal Exemption.—Every individual receives a "personal exemption" upon which no income tax is paid, in the following amounts: Husband and wife, living together, from their aggregate net income, \$2,000; head of a family, \$2,000; single person, \$1,000; for each dependent (not husband or wife) under 18 years of age or incapable of

self-support, in addition, \$200.

The Normal Tax and the Surtax.—The Income Tax on individuals includes two taxes computed by different methods. The first is the Normal Tax which applies at the same rate to every individual. The rates are: \$4,000 of Net Income (in excess of exemptions and credits), 4%; remainder of Net Income, 8%. For example, a single person, not the head of a family, will pay no normal tax on the first \$1,000 of his net income, 4% on the next \$4,000 or part thereof, and 8% on all the remainder, whether his net income is \$10,000 or \$200,000. If his net income is \$6,000, his normal tax will be \$240. In addition, he will pay a surtax.

If the net income of an individual exceeds \$5,000, it is subject to the surtax, which is at different rates on successive parts of the income, increasing rapidly as the income grows larger. The personal exemption is not used to compute this tax. For example, if the net income exceeds \$5,000, the surtax will amount to 1% on the excess up to \$1,000 or a net income of \$6,000. If the net income is greater than \$6,000, the excess up to \$8,000 is taxed 2%, and a higher rate is imposed on each succeeding part of the net income, increasing by 1% for each \$2,000 up to \$100,000 and then by greater steps to 65%. The Income Tax Table on page 458 shows all the rates of surtax and a convenient method of computation up to a net income of \$26,000.00

An annual Return, showing in detail the gross income and the net income for the calendar or fiscal year, must be filed by every single person receiving a net income of \$1,000 or over during the year, even though the head of a family or for any other reason not subject to tax, and by every married person living with husband or wife where the husband and wife receive an aggregate net income of \$2,000 or over during the year. The Return must be filed with the Collector of Internal Revenue for the district in which the taxpayer resides or has his principal place of business, on or before March fifteenth of each year or within two months and fifteen days following the close of the established fiscal year of the taxpayer.

Returns of Husband and Wife.—A Return by the husband and wife is required if the combined net income of husband

and wife (living together) is \$2,000 or more. If a man earns \$1.100 and his wife earns \$600, no Return is due, but a Return must be filed if he has a net income of \$1,800 and she has a net income of \$600. This may be two separate Returns or the wife may subscribe to the joint Return made by both the husband and the wife. If the amount of the wife's income is small, it is acceptable if only the husband signs the Return. The Return should show separately the income received by each.

Married Woman's Separate Return .-- A married woman may make a separate Return of her own income, and should do so if the net income of her husband or herself exceeds \$5,000, as the surtax is imposed upon the separate incomes and the assessment is much more convenient upon separate than upon combined Returns. The 8% rate applies also to the income separately and not combined.

Exemptions of Husband and Wife.—Husband and wife are entitled to only one exemption, to be deducted from their combined incomes. If the husband deducts the \$2,000 exemption and the allowance for dependent children from his separate Return in computing his normal tax, then his wife who files a separate Return is not entitled to any exemption from normal tax. Where one return includes the income of both husband and wife, the exemption should be deducted from their combined incomes. Where the husband and wife are not living together they are to be treated as single persons, and each is entitled to the \$1,000 exemption of a single person.

### INDIVIDUAL INCOME TAX TABLE

Showing Total Tax and Convenient Method of Computation

Begin at the first column with the largest amount which is

included in your net income, and read across the page.

The figures given are for a married person or the head of a family with a personal exemption of \$2,000, not receiving any dividends or exempt interest.

For a single person find the total tax according to the table and then add \$80 where the net income exceeds \$6,000 or \$40 where the net income is less than \$5,000.

Where there are dependents, as defined by the law, other than husband or wife, from the amount shown by the table deduct \$16 for each dependent where the net income exceeds the total personal exemption by \$4,000 or more, or \$8 for each dependent where the net income is between the personal exemption and \$6,000. If the net income does not come in either of these classes, compute the tax without using the table. If the net income includes any dividends or interest which

of these classes, compute the tax without using the table. If the net income includes any dividends or interest which is subject to surtax only, from the amount shown by the table deduct 8 per cent of the amount of such partially exempt income if the remaining net income exceeds the personal exemption by \$4,000 or more; 4 per cent of such amount if the net income including the partially exempt income is less than \$4,000 in excess of the personal exemption. If the net income does not come in either of these classes, compute the tax without using the table.—Courtesy Chicago Association of Credit Men.

Net	Normal	Surtar	Total	Add Tox	on Additi	onal Not	Incomo
Income	Tax	Suitas	Tax	From	To	Normal	
AMCOMIC.	A 44.26		1 44.24	A. A OMIA		Tax	Suitax
\$ 1,000	None	None	None	\$ 1,000	\$ 2,000	None	None
2,000	None	None	None	2,000	5,000	4%	None
2,500	\$ 20	None	\$ 20	2,500	5,000	4%	None
3,000	40	None	40	3,000	5,000	4 %	None
4,000	80	None	80	4,000	5,000	4 %	None
5,000	120	None	120	5,000	6,000	4 %	1%
6,000	160	\$ 10	170	6,000	8,000	8%	$\overline{2}\%$
7,000	240	30	270	7,000	8,000	8%	2%
7,500	280	40	320	7,500	8,000	8%	2%
8,000	320	50	370	8,000	10,000	8 %	3%
9,000	400	80	480	9,000	10,000	8%	3%
10,000	480	110	590	10,000	12,000	8%	4%
12,000	640	190	830	12,000	14,000	8%	5 % 5 %
12,500	680	215	895	12,500	14,000	8%	5%
14,000	800	290	1,090	14,000	16,000	8%	6%
15,000	880	350	1,230	15,000	16,000	8%	6%
16,000	960	410	1,370	16,000	18,000	8%	7%
18,000	1,120	550	1,670	18,000	20,000	8%	8%
20,000	1,280	710	1,990	20,000	22,000	8%	9%
22,000	1,440	890	2,330	22,000	24,000	8%	10%
24,000	1,600	1,090	2,690	24,000	26,000	8%	11%
25,000	1,680	1,200	2,880	25,000	26,000	8%	11%
26,000	1,760	1,310	3,070	26,000	28,000	8%	12%

Exemption of Head of a Family.—A person is, for tax purposes, the head of a family and has an exemption of \$2,000 from the normal tax where he actually supports in one household one or more related persons, pursuant to some legal or moral obligation. Mere support of a dependent who continuously and without necessity resides elsewhere than in the home of the taxpayer does not confer the \$2.000 exemption.

For each person (except husband or wife) under 18 years of age or incapable of self-support because mentally or physically defective, dependent upon and receiving his chief support from the taxpayer, the taxpayer receives an exemp-

tion of \$200 from the normal tax.

A parent may include in his Return the income of dependent minor children. Compensation earned by such children is income of the parent. As to such income, there

is no personal exemption for the minor.

Exemption Fixed by Status at the End of the Year.—The status of the taxpayer, for the purpose of the exemption, is determined as of the last day of the taxable year for which the Return is made. A man who marries on December 30 is entitled to deduct the full amount of the exemp-

tion applicable to a married person.

Nonresident Aliens.—A citizen or subject of a foreign country who does not reside in this country is a nonresident alien and is taxed upon the income received from sources in this country. An alien residing in the United States and a citizen residing here or abroad are taxed upon their entire income, including that received from foreign sources. Citizenship is conferred only by completed naturalization, not by so called "first papers." An alien entitled to a personal exemption from tax may secure freedom from

withholding from his salary or wages by filing with his

employer an affidavit.

Corporations and Associations.—Corporations organized in this country are taxed upon their income received from all sources; corporations organized in foreign countries are taxed upon the net income received from sources in this

country only.

Kinds of Taxes on Income.—The net income of a corporation is subject to two distinct taxes, the Excess Profits Tax (called the Profits Tax for brevity), and the Income Tax, each with different rates. exemptions, credits, and methods of computation. The Excess Profits Tax is directed at the excess over a fixed return upon the invested capital. The tax, however, is limited to a maximum determined at flat rates without reference to invested capital. The Income Tax is levied at a flat rate upon the taxable income in excess of the stated exemptions and is in addition to the Profits Tax.

Partnerships.—Although a partnership itself is not taxed upon its income, the law requires every partnership to file a Return showing its gross income and net income, which is determined according to the requirements of the Income Tax Law applying to individuals, except that donations to charities are not deductible. The Return must be filed even though the firm has no net income for the year. A partnership is classified as a corporation and not as a partnership under the Income Tax Law, and is subject to the corporation taxes, where there is any evidence that it is organized and operated in corporate form.

Estates and Fiduciaries.—Whenever an estate receives any income which is not received for distribution to known beneficiaries, it is taxed upon such income as if it were an individual. It is subject to the normal tax and the surtax, and the same credits are allowed, including the per-

sonal exemption of \$1,000.

Gross Income and Net Income.—All that a person receives in the way of gains or profits, with certain exceptions described by the Act, makes up the "Gross Income," which therefore means taxable gross income. The Act then specifies certain "Deductions" which are allowed, and the remainder is what is called the "Net Income." Net Income is to be determined for the calendar year unless the taxpayer regularly employs books based upon an annual accounting period ending upon the last day of some month other than December.

Deductions From Gross Income.—Individuals, partner-ships, and corporations are allowed to deduct from their taxable gross income "all the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business." The law expressly disallows the deduction of "personal, living, or family expenses."

Items Not Included in Gross Income.—The value of property acquired by gift, bequest, devise, or descent is not included in income of individuals or corporations, but the

income from such property must be included.

Amounts received by an individual as compensation for personal injuries or sickness are not regarded as gains and are not included in the gross income.

The money received upon a life insurance policy by the estate of the insured or by an individual or partnership beneficiary, at the death of the one insured, is not taxable.

The amounts received by a corporation as dividends upon stock in other taxable corporations are exempted from all taxes.

The law exempts the interest upon obligations of the United States issued before September, 1917, and upon those issued after that date, if and to the extent provided in the act authorizing the issue.

Profit-sharing or bonus or other special form of compensation is income, if it is in fact a payment for services, but not if it is a gift. Christmas gifts, even though custom-

arily and regularly made, are not taxable income.

Farming.—When farm products are sold, the entire receipts are gross income and the Deductions include the items of cost and expense. Farmers are allowed to compute net income on an inventory basis.

Taxable profit resulting from the sale or other disposition of property which has been held as capital or principal, is income of the year in which it is realized, notwithstanding

that it may actually have accrued in other years.

The cost of property, as used to determine profit, may be the inventory value, where inventories are made in accordance with the Regulations.

Expenses of Farmers.—An individual or corporation carrying on the business of farming may deduct amounts paid for labor used in producing crops or livestock, cost of seed and fertilizers, cost of feed, repairs to buildings, fences and machinery, expense of marketing, and similar ordinary and necessary expenses. Where farm labor or farm produce is charged as an expense, the same items may not again be used to determine the cost of live stock or other property.

Dividends and Stock Dividends.—Dividends received by a corporation are not subject to any Income or Profits Tax. Dividends paid by foreign corporations not paying an income

tax to the United States are subject to all taxes.

A paper profit or merely a bookkeeping gain, not actually realized in money or otherwise "cashed in," is not income. Profits from sales and stocks in security, is income where the transaction has actually been brought to a conclusion.

The law expressly provides that a stock dividend constitutes income to the extent of the earnings or profits distributed. The Supreme Court recently ruled that Congress has no constitutional authority to tax stock dividends.

Pensions and Compensation for Injuries.—Pensions regularly paid to employees or their dependents in case of death, retirement, or injury, may be deducted, but a mere gratuity may not be deducted. Compensations for injuries, paid pursuant to legal liability, is a deductible expense.

Losses.—Individuals must separately report: (1) losses

incurred in trade or business; (2) losses incurred in a transaction entered into for profit but not connected with the trade or business; (3) losses not connected with the trade or business arising from fire, storm, shipwreck or other casualty or from theft; (4) debts ascertained to be worthless and charged off.

Contributions to Charities.—Contributions or gifts, made within the year covered by the Return to certain classes of charitable organizations, may be deducted by an individual to an amount not in excess of 15% of his net income as computed without the benefit of this deduction. This deduction is not allowed to corporations or partnerships.

Returns and Payment of Tax.—Returns of individuals and corporations must be filed on or before March 15 of each year, or the fifteenth day of the third month following the close of the fiscal year where made on the basis of a fiscal

year.

If the Return is not filed in time, the taxpayer is subject to a penalty of \$1,000 and, unless it is shown that the delay was due to a reasonable cause and not willful neglect or mere oversight, to a further penalty of 25% of the amount of the tax. The consequent delay in paying the first or subsequent installments is also subject to penalty.

The Return of an individual should be filed where such person resides or has his principal place of business. The collector may require any taxpayer to produce evidence in support of his Return and to submit to examination with reference to all items in it, and may increase amounts which he finds to be understated.

Frequently collectors refuse to accept Returns which do not conform to their ideas of computation of the tax, but

this exceeds their authority.

Time of Payment.—The Income and Profits Taxes are due in four equal installments on March 15, June 15, September 15, and December 15. The penalty for delay in paying any installments is 5% of the amount, plus interest at 1% per month from the date fixed by the notice and demand from the collector.

Payment must be made in cash or bank check or draft

which will not involve cost of collection.

# THE NEW BANKING AND CURRENCY SYSTEM

ESTABLISHED BY THE FEDERAL RESERVE ACT OF DEC. 23, 1913.

The title of the Act providing for the new banking and currency system reads: "An act to provide for the establishment of Federal reserve banks, to furnish an elastic

currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the United States, and for other purposes."

Need and Purpose of the System Explained. - President Wilson, in his currency message which he read to the two Houses of Congress in joint session June 24, 1913, declared: "We must have a currency, not rigid as now, but readily, elastically responsive to sound credit, the expanding and contracting credits of every-day transactions, the normal ebb and flow of personal and corporate dealings. Our banking laws must mobilize reserves; must not permit the contraction anywhere in a few hands of the monetary resources of the country or their use for speculative purposes in such volume as to hinder or impede or stand in the way of other more legitimate, more fruitful uses. And the control of the system of banking and of issue which our new laws are to set up must be public, not private, must be vested in the Government itself, so that the banks may be the instruments, not the masters, of business and of industrial enterprise and initiative."

Commended by Investment Bankers.—At a meeting of the board of governors of the Investment Bankers' Association of America, held at Philadelphia in January, 1914, the following resolution commending the currency act and bespeaking its acceptance by the entire country, was adopted:

"Resolved, That the board of governors of the Investment Bankers' Association of America hereby congratulate the government and the people upon the passage of a currency bill which is, on the whole, calculated to restore confidence and prevent panics, at the same time introducing a certain elasticity into our currency which has always been lacking.

"We believe it to be the patriotic duty of every banker and citizen to co-operate with the government for the common good. We hereby pledge ourselves to use our best

efforts in this direction.

"It is unnecessary to point out that the crux of the whole matter is the personnel of the National Reserve Board. High character, experience in business and banking should control in the appointments to the National Reserve Board if the new system is to command the confidence of the country."

### MAIN FEATURES OF THE ACT.

Federal Reserve Districts.—The act provides that the Secretary of the Treasury, the Secretary of Agriculture and the Comptroller of the Currency, acting as the Reserve Board organization committee, shall designate not less than

eight nor more than twelve cities to be known as federal reserve cities, and shall divide the continental United States, excluding Alaska, into districts, each district to contain only one of such Federal reserve cities. (See page 146.)

National Banks Must Subscribe to Capital Stock.—When the organization committee shall have designated the cities in which Federal reserve banks are to be organized, and fixed the geographical limits of Federal reserve districts, every national banking association within that district shall be required within thirty days after notice from the organization committee to subscribe to the capital stock of such Federal reserve bank in a sum equal to six per centum of the paid-up capital stock and surplus of such bank.

Capital Required. —No Federal reserve bank shall commence business with a subscribed capital less than \$4,000,000.

Branch Offices. —Each Federal reserve bank shall establish branch banks within the Federal reserve district in which it is located and may do so in the district of any Federal reserve bank which may have been suspended. Such branches shall be operated by a board of directors under rules and regulations approved by the Federal reserve board. Directors of branch banks shall possess the same qualifications as the directors of the Federal reserve banks. Four of said directors shall be selected by the reserve bank and three by the Federal Reserve Board. The reserve bank shall designate one of the directors as manager.

Stock Issues. —The capital stock of each Federal reserve bank shall be divided into shares of \$100 each. The outstanding capital stock shall be increased from time to time as member banks increase their capital stock and surplus or as additional banks become members, and may be decreased as member banks reduce their capital stock or surplus or cease to be members. When a member bank increases its capital stock or surplus it shall thereupon subscribe for an additional amount of capital stock of the Federal reserve bank of its district equal to six per centum of the said increase.

State Banks as Members.—Any bank incorporated by special law of any State, or organized under the general laws of any State or the United States, may make application to the reserve bank organization committee, pending organization, and thereafter to the Federal Reserve Board for the right to subscribe to the stock of the Federal reserve bank organized or to be organized within the Federal reserve district where the applicant is located.

The organization committee or the Federal Reserve Board may permit the applying bank to become a stockholder in the Federal reserve bank of the district in which the applying bank is located.

Reserves Required.—By amendment of August 15, 1914, a bank in a reserve city is required to hold reserves equal to fifteen per cent. of the aggregate amount of its demand deposits and five per cent. of its time deposits, and a bank in a central reserve city reserves equal to eighteen per cent. of its demand deposits and five per cent. of its time deposits.

A Federal Reserve Board is created by the act, consisting of seven members, including the Secretary of the Treasury and the Comptroller of the Currency, and five members appointed by the President of the United States, which board is to exercise general supervision over the Federal reserve banks.

Federal Advisory Council.—The act provides for a Federal advisory council, consisting of as many members as there are Federal reserve districts. The council shall have power, by itself or through its officers, (1) to conferdirectly with the Federal Reserve Board on general break conditions; (2) to make oral or written representations concerning matters within the jurisdiction of the board; (3) to call for information and to make recommendations in regard to discount rates, rediscount business, note issues, reserve conditions in the various districts, the purchase and sale of gold or securities by reserve banks, open-market operations by said banks, and the general affairs of the reserve banking system.

#### POWERS OF FEDERAL RESERVE BANKS.

To Receive Deposits.—Any Federal reserve bank may receive from any of its member banks, and from the United States, deposits of current funds in lawful money, national bank notes, Federal reserve notes or checks and drafts upon solvent member banks, payable upon presentation; or, solely for exchange purposes, may receive from other Federal reserve banks deposits of current funds in lawful money, national bank notes, or checks and drafts upon solvent member or other Federal reserve banks, payable upon presentation.

To Discount Notes, Drafts and Bills of Exchange. —Upon the indorsement of any of its member banks, with a waiver of demand, notice and protest by such bank, any Federal reserve bank may discount notes, drafts and bills of exchange arising out of actual commercial transactions; that

is, notes, drafts and bills of exchange issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been used, or are to be used, for such purposes, the Federal Reserve Board to have the right to determine or define the character of the paper thus eligible for discount within the meaning of this act. Nothing in this act contained shall be construed to prohibit such notes, drafts, and bills of exchange, secured by staple agricultural products, or other goods, wares, or merchandise, from being eligible for such discount; but such definition shall not include notes, drafts, or bills covering merely investments or issued or drawn for the purpose of carrying or trading in stocks, bonds or other investment securities, except bonds and notes of the Government of the United States. Notes, drafts and bills admitted to discount under the terms of this paragraph must have a maturity at the time of discount of not more than ninety days: Provided, That notes, drafts, and bills drawn or issued for agricultural purposes or based on live stock and having a maturity not exceeding six months, may be discounted in an amount to be limited to a percentage of the capital of the Federal reserve bank, to be ascertained and fixed by the Federal Reserve Board.

To Discount Acceptances.—Any Federal reserve bank may discount acceptances which are based on the importation or exportation of goods and which have a maturity at time of discount of not more than three months, and indorsed by at least one member bank. The amount of acceptances so discounted shall at no time exceed one-half the paid-up capital stock and surplus of the bank for which the rediscounts are made.

The aggregate of such notes and bills bearing the signature or indorsement of any one person, company, firm or corporation rediscounted for any one bank shall at no time exceed ten per centum of the unimpaired capital and surplus of said bank; but this restriction shall not apply to the discount of bills of exchange drawn in good faith against actually existing values.

Any member bank may accept drafts or bills of exchange drawn upon it and growing out of transactions involving the importation or exportation of goods having not more

the importation or exportation of goods having not more than six months sight to run; but no bank shall accept such bills to an amount equal at any time in the aggregate to more than one-half its paid-up capital stock and surplus.

Open Market Operations.—Any Federal reserve bank may, under rules and regulations prescribed by the Federal Reserve Board, purchase and sell in the open market, at home or abroad, either from or to domestic or foreign banks, firms, corporations, or individuals, cable transfers

and bankers' acceptances and bills of exchange of the kinds and maturities by this act made eligible for rediscount, with or without the indorsement of a member bank.

Every Federal reserve bank shall have power:

- (a) To deal in gold coin and bullion at home or abroad, to make loans thereon, exchange Federal reserve notes for gold, gold coin or gold certificates, and to contract for loans of gold coin or bullion, giving therefor, when necessary, acceptable security, including the hypothecation of United States bonds or other securities which Federal reserve banks are authorized to hold;
- (b) To buy and sell, at home or abroad, bonds and notes of the United States, and bills, notes, revenue bonds, and warrants with a maturity from date of purchase of not exceeding six months, issued in anticipation of the receipt of assured revenues by any State, county, district, political subdivision or municipality in the continental United States, including irrigation, drainage and reclamation districts, such purchases to be made in accordance with rules and regulations prescribed by the Federal Reserve Board:
- (c) To purchase from member banks and to sell, with or without its indorsement, bills of exchange arising out of commercial transactions, as hereinbefore defined;
- (d) To establish from time to time, subject to review and determination of the Federal Reserve Board, rates of discount to be charged by the Federal Reserve bank for each class of paper, which shall be fixed with a view of accommodating commerce and business;
- (e) To establish accounts with other Federal reserve banks for exchange purposes and, with the consent of the Federal Reserve Board, to open and maintain banking accounts in foreign countries, appoint correspondents and establish agencies in such countries wheresoever it may deem best for the purpose of purchasing, selling and collecting bills of exchange, and to buy and sell, with or without its indorsement, through such correspondents or agencies, bills of exchange arising out of actual commercial transactions which have not more than ninety days to run and which bear the signature of two or more responsible parties.

Government Deposits. —The moneys held in the general fund of the Treasury, except the five per centum fund for the redemption of outstanding national bank notes and the funds provided in this act for the redemption of Federal reserve notes, may, upon the direction of the Secretary of the Treasury, be deposited in Federal reserve banks,

which banks, when required by the Secretary of the Treasury, shall act as fiscal agents of the United States; and the revenues of the Government or any part thereof may be deposited in such banks, and disbursements may be made by checks drawn against such deposits.

Note Issues. - Federal reserve notes, to be issued at the discretion of the Federal Reserve Board for the purpose of making advances to Federal reserve banks through the Federal reserve agents as set forth in the act and for no other purpose, are hereby authorized. The said notes shall be obligations of the United States and shall be receivable by all national and member banks and Federal reserve banks and for all taxes, customs, and other public dues. They shall be redeemed in gold on demand at the Treasury Department of the United States, in the City of Washington, District of Columbia, or in gold or lawful money at any Federal reserve bank. Any Federal reserve bank may make application to the local Federal reserve agent for such amount of the Federal reserve notes hereinbefore provided for as it may require. Such application shall be accompanied with a tender to the local Federal reserve agent of collateral in amount equal to the sum of the Federal reserve notes thus applied for and issued pursuant to such application. The collateral security thus offered shall be notes and bills, accepted for rediscount under the provisions of section thirteen of this act, and the Federal reserve agent shall each day notify the Federal Reserve Board of all issues and withdrawals of Federal reserve notes to and by the Federal reserve bank to which he is accredited. The said Federal Reserve Board may at any time call upon a Federal reserve bank for additional security to protect the Federal reserve notes issued to it.

Gold Reserves. —Every Federal reserve bank shall maintain reserves in gold or lawful money of not less than thirty-five per centum against its deposits and reserves in gold of not less than forty per centum against its Federal reserve notes in actual circulation, and not offset by gold or lawful money deposited with the Federal reserve agent.

Refunding Bonds.—After two years from the passage of this act, and at any time during a period of twenty years thereafter, any member bank desiring to retire the whole or any part of its circulating notes, may file with the Treasurer of the United States an application to sell for its account, at par and accrued interest, United States bonds securing circulation to be retired.

Loans on Farm Lands.—Any national banking association not situated in a central reserve city may make loans secured by improved and unincumbered farm land, situ-

ated within its Federal reserve district, but no such loan shall be made for a longer time than five years, nor for an amount exceeding fifty per centum of the actual value of the property offered as security. Any such bank may make such loans in an aggregate sum equal to twenty-five per centum of its capital and surplus to one-third of its time deposits, and such banks may continue hereafter as here-tofore to receive time deposits and to pay interest on the same.

The Federal Reserve Board shall have power from time to time to add to the list of cities in which national banks shall not be permitted to make loans secured upon real

estate in the manner described in this section.

Bank Examinations.—The Comptroller of the Currency, with the approval of the Secretary of the Treasury, shall appoint examiners who shall examine every member bank at least twice in each calendar year and oftener if considered necessary: Provided, however, That the Federal Reserve Board may authorize examination by the State authorities to be accepted in the case of State banks and trust companies and may at any time direct the holding of a special examination of State banks or trust companies that are stockholders in any Federal reserve bank. The Federal Reserve Board shall, at least once each year, order an examination of each Federal reserve bank, and upon joint application of ten member banks the Federal Reserve Board shall order a special examination and report of the

condition of any Federal reserve bank.

Prohibitions and Penalties .- No member bank or any officer, director or employee thereof shall hereafter make any loan or grant any gratuity to any bank examiner. Any bank officer, director or employee violating this provision shall be deemed guilty of a misdemeanor and shall be imprisoned not exceeding one year or fined not more than \$5,000, or both; and may be fined a further sum equal to the money so loaned or gratuity given. Any examiner accepting a loan or gratuity from any bank examined by him, or from an officer, director, or employee thereof, shall be deemed guilty of a misdemeanor and shall be imprisoned not exceeding one year or fined not more than \$5,000, or both; and may be fined a further sum equal to the money so loaned or gratuity given; and shall forever thereafter be disqualified from holding office as a national bank ex-No national bank examiner shall perform any other service for compensation while holding such office for any bank or officer, director, or employee thereof.

Other than the usual salary or director's fee paid to any officer, director, or employee of a member bank and other than a reasonable fee paid by said bank to such officer, director, or employee for services rendered to such bank,

no officer, director, employee, or attorney of a member bank shall be a beneficiary of or receive, directly or indirectly. any fee, commission, gift, or other consideration for or in connection with any transaction or business of the bank. No examiner, public or private, shall disclose the names of borrowers or the collateral for loans of a member bank to other than the proper officers of such bank without first having obtained the express permission in writing from the Comptroller of the Currency or from the board of directors of such bank, except when ordered to do so by a court of competent jurisdiction, or by direction of the Congress of the United States, or of either House thereof, or any committee of Congress or of either House duly authorized. Any person violating this section shall be punished by a fine not exceeding \$5,000 or by imprisonment not exceeding one year, or both.

Stockholders Liable for Debts. -The stockholders every national banking association shall be held individually responsible for all contracts, debts, and engagements of such association, each to the amount of his stock therein, at the par value thereof, in addition to the amount invested in such stock. The stockholders in any national banking association who shall have transferred their shares or registered the transfer thereof within sixty days next before the date of the failure of such association to meet its obligations, or with knowledge of such impending failure, shall be liable to the same extent as if they had made no such transfer, to the extent that the subsequent transferee fails to meet such liability; but this provision shall not be construed to affect in any way any recourse which such shareholders might otherwise have against those in whose names such shares are registered at the time of such failure.

Foreign Branches. - Any national banking association possessing a capital and surplus of \$1,000,000 or more may file application with the Federal Reserve Board, upon such conditions and under such regulations as may be prescribed by the said board, for the purpose of securing authority to establish branches in foreign countries or dependencies of the United States for the furtherance of the foreign commerce of the United States, and to act, if required to do so, as fiscal agents of the United States. Such application shall specify, in addition to the name and capital of the banking association filing it, the place or places where the banking operations proposed are to be carried on, and the amount of capital set aside for the conduct of its foreign business. The Federal Reserve Board shall have power to approve or reject such application if, in its judgment, the amount of capital proposed to be set aside for the conduct of foreign business is inadequate, or if for other reasons the granting of such application is deemed inexpedient.

# FEDERAL RESERVE SYSTEM IN OPERATION

# FINANCIAL GROWTH UNPARALLELED RESOURCES AND NEEDS OF THE SYSTEM

According to the report of the Comptroller of the Currency, John Skelton Williams, the operation of the National banks during the period from October, 1914, to November, 1915—the first year under the Federal Reserve System, "reveals a development never paralleled in the financial history of any country."

The net resources of the banks increased in the year \$1,743,878,648; the deposits increased \$2,081,530,164; and the loans and discounts increased \$917,450,502. Available cash increased in the same period \$862,000,000, and on November 10, 1915, the reporting National banks had excess reserves of \$891,000,000. Tables of the comparative condition of banks in 1895 and 1915, compiled in the Comptroller's office, show that in September, 1895, there were 3,712 reporting banks with net deposits of \$1,989,300,000 and loans and discounts of \$2,059,408,402, while in November, 1915, there were 7,617 reporting banks with net deposits of \$9,079,471,447, loans and discounts of \$7,233,928,973.

Resources of the Federal Reserve Banks.—Statements issued by the twelve Federal Reserve Banks on November 12, 1915, made the following showing: Capital, \$54,846,000; deposits, \$374,317,000; resources, \$446,192,000.

Greatest Reserves Ever Held.—The resources held by the National banks November 10, 1915, exceeded by \$587,000,000 the greatest reserves ever held at any time prior to the passage of the Federal Reserve Act. Loans and discounts amounted to more than the total loans and discounts of all banks, including national, state, savings and private banks and loan and trust companies, as late as the year 1902.

The banking power of the United States (the capital, surplus, circulation, deposits, etc.) of all reporting banks, national and otherwise, with an estimate of the figures of non-reporting banks, amounted in June, 1915, to \$25,397,100,000, an increase in a year of about \$1,057,100,000,

Savings bank depositors increased by 176,256 during the year ending June, 1915, with total deposits of \$4,997,706,013. The average deposit, however, decreased from \$444.36 to \$442.83, while the number of banks increased from 2,100 to 2,159.

Amendments Recommended by the Comptroller.—The Comptroller of the Currency suggests that an amendment to the Federal Reserve Act be passed authorizing and directing the

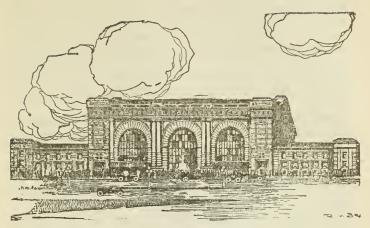
Department of Justice to bring suits against usurers upon information furnished either by the Comptroller or through other sources.

"To prevent failures," other amendments are suggested by the Comptroller as follows: To prohibit officers from borrowing from their own banks; to prevent loans to directors except with the approval of the board; to require officers and employees to give surety bonds; to limit direct and indirect loans to one individual, firm or corporation; to prevent or limit overdrafts; to require certificates of deposit to be signed by two directors; to prevent erasures on the books of a bank; to limit interest paid on deposits; to authorize the establishment of branches in the United States; to permit branches in Alaska and insular possessions; to authorize minimum interest charges—which ordinarily might be usurious—on small loans, and to authorize the Comptroller to bring proceedings against directors for losses sustained by a bank through violation of the bank act; to give the Comptroller authority to remove directors guilty of persistent violations of the bank act.

How Banks are Broken.—Banks, according to the report of the Comptroller, nearly always are broken, not by bank robbers who have come from the outside, not by fallure of customers to whom they have loaned money, but by the tying up or dissipation of the bank's funds through loans to their own officers and directors, or else by direct defalcations and embezzlements by trusted officers. If these evils are remedied—and they can be remedied, says the Comptroller, if the necessary amendments to the bank act can be secured—failures among national banks can be reduced to a negligible number, or be absolutely eliminated.

Number of Bank Failures.—There were fourteen failures during the twelve months ended October 31, 1915. In the last fifty years there were 208 failures attributable to criminal acts, while injudicious or careless banking was responsible for 136 failures.

Decentralizing the Money Power.—"It is time," says the Comptroller in his report, "for all banks of this country to realize that the Federal Reserve Act was framed to benefit not only the banks, but also the customers of the banks; that one of the great objects of the law was to decentralize the money of the country; to effect a more equitable distribution of capital and do away with the old system by which the resources of our banks have been so greatly concentrated in a few cities or sections, there to be loaned out largely on speculative ventures, while in other regions money needed so urgently for the legitimate purposes of industry and of development has been scarce and oftentimes only, if at all, at rates injurious if not prohibitory."



NEW UNION RAILROAD STATION. KANSAS CITY, MISSOURI

### FARM LOANS

The Federal farm loan act, or rural credit bill, approved July 17, 1916, provides for a system of land banks, empowered to make long-time farm loans.

A Federal farm loan board is provided for by the act. The board consists of five members, four chosen by the President with the advice and consent of the senate, the fifth being the Secretary of the Treasury.

A Federal farm loan bureau is established at Washington under the supervision of the Federal farm loan board.

Twelve Land Bank Districts.—The act provides that the United States shall be divided into twelve Federal land bank districts, in each of which a Federal land bank shall be established, having a minimum capital of \$750,000.

Each Federal land bank is to be governed by nine directors.

The capital stock of each Federal land bank shall be divided into shares of \$5 each and may be subscribed for and held by any individual, firm or corporation or by the government of any state or of the U. S.

The Federal Farm Loan Board shall open books of subscription for the capital stock in each Federal land bank district. If within thirty days after the opening of the books any part of the \$750,000 remains unsubscribed, it becomes the duty of the Secretary of the Treasury to subscribe the balance thereof on behalf of the U. S., subject to call, in whole or in part, by the board of directors of the bank upon 30 days' notice with the approval of the Federal farm loan board.

Government Deposits.—The Secretary of the Treasury is authorized, upon request of the Loan Board to make deposits for the temporary use of any Federal land bank, out of any money in the Treasury not otherwise appropriated.

The land banks when designated for that purpose by the Secretary of the Treasury, shall be depositories of public money, except receipts for customs.

Farm Loan Associations.—Ten or more farmers in local parts of each bank district may form national farm loan associations, in conformity with instructions contained in circulars and blanks furnished by the Federal loan board at Washington, D. C.

These local national farm loan associations furnish the Federal land bank of their respective districts with farm loans, and ultimately become the only stockholders of the Federal land banks.

How Loans Must be Made.—Loans can be made only for the following purposes: To provide for the purchase of land for agricultural purposes or for the purchase of equipment, fertilizers and necessary live stock; to erect buildings and improve the land mortgaged; to liquidate existing incumbrances.

Amount of Loans.—No loan can exceed 50 per cent. of the value of the land mortgaged and 20 per cent. of the value of the permanent improvements thereon. No loan is to be less than \$100 nor more than \$10,000 to one borrower.

To Whom Loans Can be Made.—No loan is to be made to any person who is not at the time or shortly to become engaged in the cultivation of the farm mortgaged.

Borrowers Must be Stockholders.—Every applicant for a loan must become a stockholder in the national farm loan association of his district. For every \$100 borrowed he must subscribe and pay for one share or \$5 worth of stock.

The maximum interest rate that can be charged on the loan is 6 per cent., and the loan may run from five years to forty years, but must contain an amortization plan of annual or semi-annual payments, so that the entire debt is extinguished at the final maturity of the loan.

The loan must run for five years in strict conformity with its terms, after which time it can be fully paid or installments accelerated if desired.

Federal Bonds.—The Federal land banks become the owners of the mortgages, which are deposited with the district registrar appointed by the Federal farm loan bureau. The Federal land banks are then permitted to issue Federal land bonds, which are direct obligations of the Federal land banks and collaterally secured by the mortgages so hypothecated.

The bonds bear a lower rate of interest than the mortgages.

The profit of the system lies in the difference of interest rates borne by the mortgages and the bond issue. In no case can the difference in rate exceed 1 per cent. per annum.

The locations of the twelve farm loan banks are as follows: Springfield, Mass., Baltimore, Md., Columbia, S. C., Louisville, Ky., New Orleans, La., St. Louis, Mo., St. Paul, Minn., Omaha, Neb., Wichita Kas., Houston, Tex., Berkeley, Cal., and Spokane, Wash.

## LIBERTY BOND AND NOTE ISSUES

Between June, 1917, and June, 1919, the Government issued twenty-two billion dollars of Liberty Bonds and War Savings Certificates. They were all subscribed for and we are entitled to congratulate ourselves on the feat. But they were by no means all taken up and paid for out of current income or earnings. Several billion dollars were carried by the banks through mere expansion of credit and currency. Mr. Miller, of the Federal Reserve Board, suggests that the amount so carried may be as much as seven billions. Savings in other forms were greatly curtailed.

Almost twenty-three million individuals bought bonds. Many never had owned a bond of any sort. Most of them learned for the first time how to save. Since these issues, savings banks have more depositors and larger deposits. The

savings habit had taken hold.

Issues of municipal bonds in 1918 dropped below three hundred million dollars. Railroads, public utilities, and so on, restricted their calls upon investment funds to the lowest limit. Building everywhere was deferred.

To a most extraordinary extent the total savings of the people in those two years went into government bonds and certificates.

Never before in all our history had the people made such a great united effort to save. Never before had they made such a great united effort to produce. Thanks to the war emergency we got a better co-ordination of industry than ever before; we got a more vigorous, continuous application of labor to production all along the line. Mainly private quarrels were laid aside in order to get maximum production for winning the war. Even then prices had more than doubled. For a great many people, with products to sell, about half the effort saved a dollar in 1919 that would have been required to save a dollar in 1914. But the saved dollar of 1919 was worth only half the dollar of 1914.

The First Liberty Loan was covered by an issue of two billion dollars in denominations of \$50 to \$1,000, running fifteen to thirty years and drawing three-and-one-half per

cent annual interest, payable semi-annually.

These bonds are exempt from all but estate and inheritance taxes. Interest dates, June 15 and December 15.

The issue date is June 15, 1917, and the maturity date June 15, 1947. They are redeemable at the government's option after June 15, 1932. They are convertible into any higher rate bond of later issue during the war (excepting short term notes) within six months after the date of issue of such higher rate bond. ("The date of the termination of war shall be the date fixed by proclamation of the President.")

Beginning July 1, 1920, the Secretary of the Treasury is authorized to buy bonds or notes of this issue at an average cost of not to exceed par and accrued interest to an amount equal to the sum of (a) two and a half per cent of the aggregate amount of bonds and notes outstanding on July 1, 1920, less an amount equal to the par obligations of foreign governments held by the United States on July 1, 1920; and (b) the interest which would have been payable on the bonds and notes purchased or redeemed or paid out of the sinking fund during such year or in previous years for which the appropriation was made.

The First Liberty Loan Converted fours 10-25 year bonds were dated November 15, 1917; to mature November 15, 1947. Interest dates, June 15 and December 15. Redeemable at government's option on or after June 15, 1932. Convertible into the First Converted 44/% bonds if application is made before November 9, 1918. (This privilege to convert has been ex-

tended and renewed.)

1. The Secretary of the Treasury is authorized from time to time until the expiration of one year after the termination of the war (by Presidential proclamation) to buy bonds of this issue at an average cost of not exceeding par and accrued interest during any twelve months' period; provided that the par amount of bonds of this issue purchased in each twelve months' period shall not exceed five per cent of the amount outstanding at the beginning of the period.

2. Beginning July 1, 1920, and each fiscal year thereafter, the Secretary of the Treasury is authorized to buy bonds or notes of this issue at an average cost of not to exceed par and accrued interest to an amount equal to the sum of (a) two and one-half per cent of the aggregate amount of bonds and notes outstanding on July 1, 1920, less an amount equal

to the par amount of any obligations of foreign governments held by the United States on July 1, 1920, and (b) the interest which would have been payable on the bonds and notes purchased or redeemed or paid out of the sinking fund during such year or in previous years for which the appropriation was made.

[Note.—The terms of the two paragraphs above marked by boldface (heavy) numerals are common to all the issues described below.]

This issue is exempt from state and local taxes and from normal income tax, but subject to estate, inheritance, supertax, excess and war profits tax on all incomes and earnings above the normal exemption. (Incomes from holdings of \$5,000 bonds are tax-exempt except for estate and inheritance taxes.) Undistributed net incomes of corporations, invested in United States bonds issued after September 1, 1917, are not subject to the ten per cent tax imposed by the income tax law on net income remaining undistributed six months after the end of the taxable year.

In addition to the tax exemption in the last paragraph preceding this paragraph, income from not more than \$45,000 of this issue or a smaller amount of bonds of this issue not exceeding one and one-half times the amount of Fourth Liberty bonds held by the owner, is exempt until two years after the war from surtaxes, excess and war profits taxes, provided said Fourth Loan bonds were originally subscribed for and have been continuously owned by the taxpayer up to the date of his tax return.

In addition to the tax exemption noted in the fourth paragraph under this head, income received on and after January 1, 1919, on not to exceed \$30,000 bonds in the aggregate until the expiration of five years after the war from surtaxes, excess and war profits taxes, is exempt.

And in addition to the exemption noted in the last paragraph preceding this paragraph, income received on and after January 1, 1919, on not to exceed \$30,000 in the aggregate, is exempt from surtaxes, excess and war profits taxes, extending through the Victory Notes, provided such bonds do not exceed three times the principal amount of the Victory Liberty Loan originally subscribed for by such owner and still held by him at the date of his tax return.

The Second Liberty Loan Fours, 10-25 years, dated November 15, 1917, maturing November 15, 1942, was issued in the amount of \$3,808,766,150.

Exemptions identical with those allowed on First Liberty

Loan Convertible Fours.

First Liberty Loan Converted Four-and-one-quarters. Issue of May 9, 1918, 15-30 year bonds. Maturity, June 15, 1947. Redeemable at government's option on or after June 15, 1932. Interest dates, June 15 and December 15. Not convertible into any later issue.

Exemptions identical with convertible fours and Second

Liberty Loan fours, with this addition:

Bonds owned continuously for at least six months prior to one's death are acceptable at par and accrued interest in payment of any estate and inheritance taxes imposed by the United States under any present or future law.

First Liberty Loan Second Converted Four-and-one-quarters, 15-30 year bonds. Dated October 24, 1918. Mature June 15, 1947. Interest dates, June 15 and December 15. Redeemable at government's option on or after June 15, 1932.

Not convertible into any later issue.

Exempt from state and local taxes and from normal income tax, but subject to estate, inheritance, supertax, excess and war profits tax on all incomes and earnings above the normal exemption. (Incomes from holdings of \$5,000 are tax-exempt except for estate and inheritance taxes.) Undistributed net incomes of corporations invested in United States bonds issued after September 1, 1917, are not subject to the ten per cent tax imposed by the income tax law on net incomes remaining undistributed six months after the end of the taxable year. In addition, income from not more than \$45,000 bonds of this issue, or a smaller amount of bonds of this issue not to exceed one and one-half times the amount of Fourth Liberty Loan bonds held by the owner, is exempt, until two years after the war, from surtaxes, excess and war profits taxes; provided said Fourth Loan bonds were originally subscribed for and have been continuously owned by the taxpayer up to the date of his tax return.

Other exemptions identical with those allowed the First

Liberty Loan four-and-one-quarters.

Second Liberty Loan Converted Four-and-one-quarters, 10-25 year bonds. Outstanding \$2,752,153,400. Dated May 9, 1918; due November 15, 1942. Interest dates, May 15 and November 15. Not convertible into any later issues. Redeemable at government's option on and after November 15, 1942.

Exempt from state and local taxes, and from normal income tax, but subject to estate, inheritance, supertax, excess and war profits tax on all incomes and earnings above the normal exemptions (incomes from holdings of \$5,000 bonds are tax exempt except for estate and inheritance taxes). Undistributed net incomes of corporations, invested in United States bonds issued after September 1, 1917, are not subject to the ten per cent tax imposed by the income tax law on net income remaining undistributed six months after the end of the taxable year.

In addition, income from not more than \$45,000 bonds of this issue not exceeding one and one-half times the amount of Fourth Liberty Loan bonds held by the owner, is exempt until two years after the war from surtaxes, excess and war profits taxes, provided said Fourth Loan bonds were originally subscribed for and have been continuously owned by the tax-

payer up to the date of his tax return.

(In case of holder's death, bonds of this issue are acceptable in payment of estate and inheritance taxes the same as

with the issue of May 9, 1918.)

Income received on and after January 1, 1919, on and not to exceed \$30,000 in the aggregate, is exempt until the expiration of five years after the war from surtaxes, and excess and war-profits taxes.

Income received on and after January 1, 1919, on not to exceed \$20,000 bonds in the aggregate, is exempt from surtaxes, excess and war profits taxes, extending through the life of the Victory Notes, provided such bonds do not exceed three times the principal amount of notes of the Victory Liberty Loan originally subscribed for by such owner and still held by him at the date of his tax return.

Fourth Liberty Loan four-and-one-quarters, 10 year bonds. Issued, \$4,176,516,850. Dated May 19, 1918, mature September 15, 1928. Interest dates, September 15 and March 15. Not redeemable until maturity. Not convertible into any

later issue. Exemptions identical with those allowed the Second Liberty Loan Convertible four-and-one-quarters.

Fourth Liberty Loan four-and-one-quarters, 15-20 year bonds. Dated October 24, 1918, mature October 15, 1958. Redeemable at government option on and after October 15, 1933. Interest dates, April 15 and October 15. Not convertible into any later issue.

Exempt from state and local taxes and from normal income tax, but subject to estate, inheritance, supertax, excess and war-profits tax on all incomes and earnings above the normal exemption (incomes from holdings of \$5,000 bonds are tax exempt except for estate and inheritance taxes). Undistributed net incomes of corporations invested in U. S. Bonds issued after Sept. 1, 1917, are not subject to the 10% tax imposed by the income tax law on net income remaining undistributed six months after the end of the taxable year.

Bonds owned continuously for at least six months prior to one's death are acceptable at par and accrued interest in payment of any estate and inheritance taxes imposed by the United States under any present or future law.

In addition to the tax exemption of interest on not to exceed \$30,000 bonds of this issue is exempt until two years after the war from surtaxes, excess and war-profits taxes, when owned by one individual, partnership, corporation or association.

In addition to the tax exemption of income received on and after January 1, 1919, on not to exceed \$30,000 bonds in the aggregate is exempt until the expiration of five years after the war from surtaxes, excess and war-profits taxes.

In addition to the tax exemption of income received on and after January 1, 1919, on not to exceed \$20,000 bonds in the aggregate, is exempt from surtaxes, excess and warprofits taxes, extending through the life of the Victory Notes, provided such bonds do not exceed three times the principal amount of Notes of the Victory Liberty Lean originally subscribed for by such owner and still held by him at the date of his tax return.

Victory Liberty Loan, three-and-three-quarters and fourand-three-quarters 3-4 Year Notes. Authorized, \$7,000,000-000. Dated May 20, 1919; due May 20, 1923. Interest dates, April 15 and October 15. Redeemable at government's option on or after June 15, 1922, upon not less than four months' notice.

The 3\%s and 4\%s are convertible and reconvertible each into the other at the holder's option after July 15, 1919, but before maturity or call for redemption, subject to possible temporary suspension of the privilege;

(a) For one month before interest dates. (b) For the period, or any portion thereof, from the date of any notice of redemption to and including the date of redemption (but

not more than four months and one week).

If all notes of either series be called for redemption, the conversion privilege ceases on the other series of notes on the date designated for redemption.

Acceptance under death clause applies to the four-and-

three-quarters only.

The two issues of First Converted 4½s differ only to the extent that the issue of October 24th is tax exempt as to the interest on not to exceed \$30,000 bonds regardless of one's subscription to the Fourth Loan, whereas the issue of May 9th is tax exempt as to the interest on not to exceed \$45,000 bonds in connection with one's subscription to the Fourth Loan.

The 33/4s are exempt both as to principal and interest from all taxation (except estate and inheritance taxes) now or hereafter imposed by the United States, any State or any of the possessions of the United States, or by any local taxing authority.

The 43/4s are exempt both as to principal and interest from all taxation now or hereafter imposed by the United States, any State, or any of the possessions of the United States, or by any local taxing authority, except estate or inheritance taxes, and graduated additional income taxes, commonly known as surtaxes, and excess profits and war-profits taxes, now or hereafter imposed by the United States, upon the income or profits of individuals, partnerships, associations or corporations.

NOTE. New Liberty Bond Tax Exemption.—This bill, passed May 27, 1920, amends the 1918 tax law and creates additional Liberty bond Exemptions. Bonds to the value of \$125,000 held by one individual would be exempt from the surtax, excess profits and war profits levies for two years after the proclamation of peace. The same exemption on \$50,000 would be granted for three years.

# VAST GROWTH OF AMERICA'S MERCHANT MARINE

Official figures of the Bureau of Navigation, Department of Commerce, show that on July 30, 1914, just before the war, the American merchant marine consisted of 755 seagoing steamers of over one thousand tons each, having a gross tonnage of 2,128,731, and other ships with a combined gross of 5,169,957 tons; the total gross tonnage being 7,928,688.

The report of the Bureau for the fiscal year that ended June 30, 1919, shows on that date a combined merchant fleet of 2,058 steamships of 1,000 tons or over, having a total of 7,300,022 gross tons. Additionally, there were seagoing vessels of less capacity, amounting to 5,499,978 gross tonnage, making a total of 12,800,000 tons in steel ships, not including 405,000 gross tons in military service.

This last item of tonnage was made up of steamships in government transport service, such as the George Washington,

Leviathan, and other seized German ships.

The wooden steam-seagoing tonnage of 1,000 gross tons or over increased from eight steamers, of 10,595 gross tons on June 30, 1914, to 293, of 693,541 gross tons, on June 30, 1919. The world's commerce is conducted mainly, of course, by steel seagoing steamers of 1,000 gross tons or over, of which on June 30, 1919, our total documented was 1,436 of 6,072,901 gross tons.

The increase in American merchant marine in the months of April, May and June, 1919, was slightly over 1,000,000

gross tons.

The total number of vessels on June 30, 1919, was 27,300. The increase between July, 1914 and June, 1919, was 26,546 ships.

At the time the report was issued, half the American tonnage was registered for foreign trade, a situation without

a parallel since 1856.

Ships lost and abandoned during the first nine months of the fiscal year aggregated 267,485 gross tons, and for the whole year only slightly exceeded 300,000 gross tons. The transfer of ships from foreign flags to the American flag virtually ceased during the fiscal year, American additions from foreign sources being almost exclusively Japanese tonnage bought by the United States Shipping Board. The transfer of ships from the American to foreign flags amounted

to only 38,300 gross tons.

Ships built in the United States and officially numbered during the year ending June 30, 1919, were 2,182, of 3,739,372 gross tons, not including fifty-nine vessels of 121,112 gross tons built for foreign owners, making a grand total of 2,241 vessels of 3,860,484 gross tons, or two-thirds of the world's output of the year, compared with 3,332,882 gross tons launched in 1913, throughout the world (including the United States); the world's largest single year output before the war, according to Lloyd's.

In the first half of the calendar year 1919, the government Shipping Board had \$29 ships with a total of 4,248,973 deadweight tons engaged in general commerce, exclusive of 2,500,000 dead tons still in war or relief service. During the same months sixty-two regular general cargo-line services in trade routes had been established, employing 174 steamships

of 1,351,305 tons.

Nineteen of the Shipping Board's new trade routes are between United States and South American ports; and New York alone, under the Shipping Board's arrangements, has sixteen ships runing to Argentina. All the other Atlantic ports are given a share of the South American trade.

Trade between Pacific ports and the Orient showed vigorous movement throughout 1919. Eventually the Pacific coast will develop a vast trade with the west coast of South America, but the Pacific ocean offers an increasingly rich commerce with Asia. The east is potentially the larger market of the two, but its development will be comparatively slow.

During the latter half of 1919, the Shipping Board set about building four oil-burning passenger steamers of 55,000 tons, each fifty feet longer than the Leviathan, and capable of crossing the Atlantic in four days. Nothing will help more to keep us toward the top as a maritime power than the possession and operation of such liners. They mark in seatravel the passing of supremacy in sea-passenger traffic, from Germany to the United States.

Oil Fuel.—The Shipping Board summarizes the advantages of oil fuel in a statement showing that it saves forty per

cent bunker space, increases mileage ten to twenty per cent, insures better control of steaming, eliminates fire-risk from spontaneous combustion, does not deteriorate in storage, will

not shift in a rough sea, and requires no stokers.

Not until the War Trade Board levied its restrictions on bunkering were any accurate statistics kept of the amount of fuel consumed on merchant ships. The Shipping Board, realizing the needs of the future, projected a comprehensive tanker-building program. Forty steel tankers of 402,710 tons were completed after the entrance of the United States in the war. The completed program calls for fifty-eight tankers of 560,230 tons. Contracts upon which work has not started will bring this total up to 156 tankers of 1,463,230 dead-weight tons. Each one of these tankers is capable of transporting oil sufficient to displace approximately 21,000 tons of coal. Each can make three trips every two months from Mexico to American seaboard ports.

Need for a Navy.—The appearance of this vast and growing American merchant marine calls for a navy adequate to protect the ships and their lanes of traffic. The government has therefore divided its naval forces into two principal units, basing the more powerful on the Pacific coast. Secretary Daniels thus summed up the situation in his message to Admiral Hugh Rodman, fleet commander, in July, 1919.

"The country is to be congratulated that the American Navy of today is big enough and powerful enough to be organized into two powerful fleets of 534,142 tons each. The world gave glad welcome to what we called our great fleet when it made its historic tour around the world. The tonnage of that fleet was 206,527, or less than half the present Pacific fleet. We have an equal fleet in the Atlantic, a small Asiatic fleet, which is to be strengthened, and a number of ships in European waters.

"There were 800 officers and 13,500 men in the fleet when it circled the globe in 1908. There are 2,000 officers and

33,000 men in the present Pacific fleet alone.

"These comparisons afford an indication of the growth in tonnage and personnel in these years, but the growth in fighting power is many times greater. Then the largest ship had four twelve-inch guns and could shoot 10,000 yards. Your splendid flag-ship, the New Mexico, of 32,000 tons, carries

twelve fourteen-inch guns and can hit the target at 20,000 yards. Its electrical propelling machinery has marked an epoch in naval progress, and since 1907 the substitution of oil for fuel has greatly increased the fighting radius of our ships."

One hundred and seventy-five vessels, headed by eight super-dreadnaughts, composed the Pacific fleet. Its units passed through the Panama Canal in the record time of ten

hours each.

Losses and Gains.—The Commerce Monthly magazine, issued by the National Bank of Commerce, New York, says our merchant marine lost ships with a capacity of 1,145,524 gross tons during the four years of war. This was 42 per

cent. of the tonnage we owned in August, 1914.

Nevertheless, by reason of our promptly devised facilities; of war's imperative demands upon sea traffic; the world's poverty of ships; the temporary paralysis of the shipbuilding industry in all European countries save only Great Britain; and the necessity of replacing tonnage sunk by enemy submarines, our gains were so great that the net result was an increase of 125 per cent. over the 1914 tonnage. Details are shown in this tabulation:

Gains  New construction Seized from enemy. Purchased from aliens. Transferred to the ocean from the Great Lakes Miscellaneous.	2,941,845 562,005 833,854 he . 139,469	
Total gains		4,516,392
Losses Enemy action	322,214	
Marine risk		
Sale to Government, abandonment, etc		
Total losses  Net gain during war.  Seagoing merchant marine, August, 1 Seagoing merchant marine, November	1914 , 1918	1,145,524 3,370,868 2,706,317 6,077,185

These figures cover in chief the items of loss and gain while the war was on. They are important as indicating that revival of shipbuilding, which under the impetus given it by war, is restoring American merchant shipping to the leading place it held at the middle of the nineteenth century.

## TAX-EXEMPT STOCK DIVIDENDS

March 8, 1920, in the case of the Collector of Internal Revenue for the Third District of the State of New York versus Myrtle H. Macomber, the Supreme Court of the United States decided that

1. The Sixteenth Amendment to the Federal Constitution must be construed in connection with the taxing clauses of the original Constitution and the effect attributed to

them before the amendment was adopted.

2. The Sixteenth Amendment, providing that "the Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several states, and without regard to any census or enumeration," does not extend the taxing power to new subjects, but merely removes the necessity which otherwise might exist for an apportionment among the states of taxes laid on income. The amendment should not be extended by construction so as to repeal or modify, except as applied to income, those provisions of the Constitution that require an apportionment according to population for direct taxes upon property, real and personal. This limitation still has an appropriate and important function and is not to be over-ridden by Congress or disregarded by the courts.

3. The essential element of income derived from property is that it is a gain derived from capital, from labor or from both combined. It is not a gain accruing to capital, but a gain or a profit proceeding from the property, severed from the capital, however invested or employed, and being received for the recipient's separate use, benefit and disposal. A stock dividend normally is payable in money—under exceptional circumstances, in some other divisible property. When so paid, and then only, does the stockholder realize a profit or gain which becomes his separate property and thus derive income from the capital invested.

4. Declaring a stock dividend is no more than a book adjustment—in essence not a dividend, but rather the opposite. The stockholder has received nothing that answers the definition of income within the meaning of the Sixteenth Amendment. To tax dividend is to tax a capital

increase, and not income.

5. Neither under the Sixteenth Amendment nor otherwise has Congress power to tax without apportionment a true stock dividend made lawfully and in good faith, or the accumulated profits behind it, as income of the stockholder. The Revenue Act of 1916, in so far as it imposes a tax upon the stockholder because of such dividend, violates the provisions of Article I, Section 2, Clause 3, and Article I, Section 9, Clause 4, of the Constitution, and to this extent is invalid, notwithstanding the Sixteenth Amendment.

Exemptions.—Two days after the decision was handed down, Internal Revenue Commissioner Daniel C. Roper sent the following letter of instructions to collectors of internal revenue, outlining the procedure to be followed by taxpayers in claiming credit for taxes already paid on stock dividends:

"A true stock dividend made lawfully and in good faith by a corporation, either against profits invested in lands, buildings, equipment or working assets of a corporation, or against accumulated and undivided profits, is not taxable as income to the shareholder recipient, it being held that to tax such stock dividends would be to tax property without apportionment, there being no realization of profit taxable as income until a sale of shares is made.

"The Bureau has telegraphed to the collectors of internal

revenue as follows:

"'Claims for credit against first installment March 15th on account of tax paid in prior years on stock dividends may be accepted but must not be permitted to reduce payment on March 15th installment unless Claim on 47A is filed setting forth full details of dividends received and taxes paid thereon and a statement of all details of any subsequent sale of shares received as a stock dividend and unless claim is accompanied by statements from the corporation which distributed dividends as to amount distributed to taxpayer and years in which profits distributed were earned."

"In filing returns for prior years taxpayers reported dividends received, including both cash and stock dividends, without segregation. It will therefore be necessary for the Department to have specific information, verified by the corporations declaring the dividends, as to the amount of dividends distributed to each taxpayer, the year in which the profits distributed were earned, and a statement disclosing all details of subsequent sales of the shares, in order that the amount of credit allowable and the validity of the claim may be correctly and justly determined.

"In accordance with this the taxpayer should present to the Collector formally a claim for credit for any overpayment of taxes in prior years on the regular form for that purpose (Form 47A) and on this form must be set forth the full details of dividends received and taxes paid thereon. This claim must be accompanied by a statement or certificate from the corporation distributing the dividends, showing the amount distributed to the taxpayer and the years in

which profits distributed were earned.

"Taxpayers on complying with these requirements will be permitted by the collectors to credit the amounts due them against any installment of taxes remaining unpaid. In case the credit to which the taxpayer is entitled exceeds the amount of taxes remaining unpaid, a claim for refund of the difference may be filed."

### STOCK DIVIDENDS FOLLOWING THE DECISION

Within the six weeks immediately following the Supreme Court decision twenty-nine corporations declared stock dividends aggregating \$131,337,800.

In addition, F. W. Woolworth Co. announced that at the annual meeting, May 19, stockholders were asked to increase common from \$50,000,000 to \$100,000,000. From this increase a stock dividend of 30%, or \$15,000,000, was

declared. Of these the most important were:

General Motors, which declared quarterly stock dividend of  $2\frac{1}{2}\%$ , \$3,684,497 par value. At high of 410, March 24, it showed an advance of  $157\frac{3}{4}$  from close of  $252\frac{1}{4}$  March 6, Saturday, the last trading day before decision was handed down.

Crucible Steel, which declared stock dividend of 50%, \$12,500,000 par value. At high of 278½, April 7, it showed advance of 81% from close of 197½, March 6.

Studebaker, which declared stock dividend of 33 1-3%, \$15,000,000 par value. At high of 126%, April 8, it showed

advance of 39 % from close of 87 4, March 6.

Kelly-Springfield Tire, which declared quarterly stock dividend of 3%, \$165,966 par value. At high of 137%, March 27, it showed advance of 19% from close of 118, March 6.

American Tobacco, which declared 75% stock dividend, par value \$38,330,886. At high of 280, April 14, it showed advance of 45 from the close of 235, March 4, last day on which stock was traded in before the decision was handed down.

Twenty-five companies which declared dividends before the close of April, 1920, are here tabulated:

	Stock	Stock	Stock
	outstanding	dividend	dividend
Company:	Mar. 8, 1920	%	par value
Am. Light & Traction	.\$25,057,219	2 ½ Q	\$626,450
American Piano	. 7,019,700	5	350,958
American Tobacco	. +51,107,848	75	38,330,886
Am. Steel Foundries	. 17,184,000	6	1,031,040
Am. Thermos Bottle	. 1,150,000	30	345,000
American Trading	. 2,124,420	100	2,124,420
Autocar	. 3,000,000	40	1,200,000
Bank of America	. 1,500,000	200	3,000,000
Columbia Motors	. 500,000	700	3,500,000
Continental Oil	. 3,000,000	200	6,000,000

	Stock outstanding	Stock dividend	Stock dividend
Company:	Mar. 8, 1920	%	par value
Crucible Steel	. 25,000,000	50	12,500,000
Federal Motor Truck		100	1,000,000
Federal Oil	4,750,000	3	142,500
General Chemical	16,519,200	20	3,303,840
General Motors	.147,479,900	2 1/2 Q	3,684,497
Hood Rubber	2,000,000	66.6	1,333,333
Int. Motor Truck	. 70,777 sh	100	*
Kelly-Springfield Tire.	. 5,532,000	3Q	165,966
Mahomet Mills		$66\frac{2}{3}$	2,000,000
Nashua Manufacturing.	2,500,000	100	2,500,000
Nonquitt Spinning	2,400,000	100	2,400,000
St. Maurice Paper	5,000,000	30	1,500,000
Stanley Works	2,500,000	100	2,500,000
Studebaker	. 45,000,000	$33\frac{1}{3}$	15,000,000
Stutz Motor Car	. 120,000 sh	80,000 sh	*
Thompson, John R	4,500,000	$33\frac{1}{3}$	1,500,000
Truscon Steel	1,444,650	20	288,930
Union Bag & Paper	. 10,000,000	50	5,000,000
United Fuel Gas	10,000,000	200	20,000,000
Total of stock dividen	d at par		131,337,800

<sup>\*</sup>No par value, †Includes \$40,242,400 common stock now outstanding and \$10,865,448 class "B" common which will be outstanding after conversion of the \$12,072,720 scrip.

# A FEW TEST AND REVIEW QUESTIONS

The following series of questions will tend to fix in the mind of the reader much of the valuable information contained within the pages of this book.

All of the subject matter of the book is not covered by the questions, nor indeed could it be without greatly enlarging the size of the volume, for its pages literally teem with important facts and figures of the most practical value, not only to the business man, but to the student, teacher, farmer, mechanic, lawyer, and statesman.

To those who have not familiarized themselves with the contents of the book, this partial list of questions will serve to show what a valuable aid this compact little ready-reference manual must be in solving the many puzzling problems that are constantly presenting themselves for solution in the practical every day business life of busy people.

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# **BUSINESS DICTIONARY**

Abandonment.-In marine insurance. the giving up of property partly destroyed, by the owner to the in-

Abatement .- A discount allowed for damage or overcharge, or for the payment of a bill before it is due.

Abolish.—To make void; to cancel.

Acceptance.—In mercantile law, the act by which the person upon whom a bill of exchange or other order is drawn engages to pay it; the bill itself after it has been accepted.

Acceptance for Honor .- An acceptance made after a bill has been protested for non-acceptance for the honor of the drawer or any indorser.

Acceptor .- One who accepts an order or draft or bill of exchange.

Accommodation Paper .- Commercial paper for which no consideration passed between the original parties; also a note to which a party has put his name to accommodate another who is to provide payment when due.

Acknowledgment-The act by which a party who has executed an in-strument declares or acknowledges it before a competent officer to be his or her act and deed.

Account .- A written or printed statement of debits and credits in any

business transaction.

Account Current .- A detailed statement of the transactions between parties for a certain period, showing the condition of affairs at the current or present time.

Account Sales .- A detailed statement of a commission merchant to his principal, showing his sales, the expenses attending the same and the net proceeds.

Accountant.-A person trained

keep accounts.

Actionaire.-The owner of shares in a stock company; a stockholder. Action.—The formal means of recov-

ering one's rights in a court of justice; a suit.

Act of God .- Any accident produced by a physical cause which is irresistible, such as lightning, hurricanes, earthquakes, etc.

Actuary .- A registrar or clerk; generally applied to the manager of a life insurance company.

Administrator. - A person appointed to settle the estate of a testator or to manage an intestate estate.

Admiralty .- The power that controls naval affairs in Great Britain. Court of Admiralty—A court which decides questions of maritime just-

Adulteration.-The debasing of an article or substance by spurious or

less valuable mixture.

Ad valorem .- According to value. Advance .- A rise in price; additional

profits; stocks above par.

Adventure.—Goods sent to sea at the

owner's risk; a speculation.

Adventure in Co.—Goods sent to be sold on joint account of shippers and consignee.

Advice .- Admonition or suggestions offered, usually in regard to buy-ing and selling goods.

Affidavit .- A written statement made upon oath.

Affreight .- To hire, as a ship, for

transporting freight.

Affreightment.—The hiring of a ship for the conveyance of goods.

Agency .- The relation existing between two parties by which one is authorized to do certain business for another, with other parties.

Agent .-- Any person who is employed by another to do business or in any way act for him.

Age of Consent .- The age at which young persons are capable of mak-ing a valid contract of marriage.

Agio .- A term used to denote the difference between the real and nominal value of money.

Alimony.—An allowance made to a wife out of her husband's estate during a sult for divorce or separation, or, at its termination, for her life or for a shorter period.

Allonge .- A paper attached to a bill of exchange, when there are too many indorsements to be contained on the bill itself.

Amotion .- Removal of an officer of a corporation.

Allowance.—A deduction made, for instance, from the gross weight of goods.

Anker .- A common liquid measure, varying in different European countries from nine to ten gallons.

Antal.—A wine measure of Hungary, holding about thirteen and a half gallons.

Anticipate.-To be before in doing, or pay before due. Ante-dated .- Dated at a time earlier

than the actual date. of Annulment.—The act void

Appraise .- To set a value on goods or property.

Appurtenance.-Adjunct or append-

age to property.

Arbitration.—The investigation and decision of a cause or matter between parties in controversy, by chosen persons.

Arbitration of Exchange.—The deduction of a proportional or arbitrated rate of exchange between two places, through an intermedi-ate place, to ascertain the most advantageous method of drawing or remitting.

Arrear.-That which remains unpaid, though due.

Articles of Copartnership .- The written agreement by which a copartnership is formed.

Assay .- To subject an ore to chemical examination to find the amount of any metal contained in it.

Assess .- To fix a certain value for the purpose of taxation.

Assets .- Property available for the payment of debts: also the entire property of an individual or company.

Assignee .- The person to whom the failing debtor transfers all his remaining property for the rulpose of having it distributed among his creditors; one to whom anything is assigned.

Assignment.—A transfer of a failing debtor of his property to an assignce; a transfer by one person to another of any property, personal or real.

Assignor .- One who assigns prop-

Association.—The union of a number of persons for some special purpose.

Attachment.-A seizure by virtue of a legal process.

Attorney, Power of.—A written au-thority from one person empowering another to act for him.

Auctioneer .- One who sells goods at public sale.

Auditor .- A person appointed to examine and settle accounts.

Avails.—Profits of property disposed of; proceeds of goods sold. Average.-A proportional share of a

general loss; also a mean time of payment for several debts due at different times.

Avoirdupois.—Commercial standard of weight in the United States and England.

Award .- Decision of arbitrators.

Bail .- The security given for releasing a person from custody.

Bailee.—The person to whom goods

are intrusted.

Bailment .- A delivery of goods in trust upon a contract that the trust shall be faithfully executed on the part of the ballee.

Bailor .- One . who intrusts goods to

another.

Balance.-The excess on one side, or what added to the other makes

equality in the account. Balance Sheet .-- A statement in condensed form showing the condition

and progress of business. Ballast.—Any heavy material placed in the hold of a ship to steady it

in the water. Banco .- A commercial term used in Hamburg to distinguish bank money

from common currency.

Bank Bill .- A written promise to pay to the bearer on demand a certain sum of money, issued by a bank and used as money.
- Banking.—The business of a banker,

or pertaining to a bank.

Bank Note .- Same as bank bill.

Bankrupt.—An insolvent: one who is unable to pay his debts.

Bankruptcy.—The condition of one

who is unable to pay his debts as they fall due. Bank Stock.—Shares in the capital

stock of a bank

Barratry .- Any breach of duty committed by the master of a vessel or the seamen, without the consent of the owner, by reason of which

the ship or cargo is injured.

Barque.—A three masted vessel carrying no square sails on her mizzen

Barter.—To trade by exchange of goods, in distinction from trading

by the use of money.

Bazaar .- A word of Eastern usage signifying a place of exchange, or general market place; a repository of fancy articles, especially of dress.

Beacon .- A signal light for the guldance of mariners; usually erected and sustained by the Government.

Beneficiary.—In life insurance, the person to whom a policy is made payable; the person for whose benefit another holds the legal title to real estate. Beyond Seas .- Denotes absence from

the country, and generally held to mean absence from the particular

Bidder .- One who bids or offers a' price.

Bill .- A name given to statements in writing; as goods, a note, a draft; a law not enacted; exhibition of

charges.

Bill of Exchange.-A direction in writing, by the person who signs it, to another, to whom it is addressed, to pay to a third person a gennite sum of money at a specified time.

Bill of Lacing .- A written statement by a common carrier to one sending goods by him, acknowledging that they have been received by him, for transportation, with terms of shipment; it is both a receipt and a contract.

Bill of Parcels .- A detailed account

of goods sold.

Bill of Sale .- A formal instrument for the transfer of goods and chat-

tels.

Blank Indorsement-One in which no particular person is named as the one to whom payment is to be made; it consists of the indorser's name only.

Board of Trade .- An association of business men for the advancement

of commercial Interests.

Bona Fide .- In good faith; in reality. Bond.—A written and sealed Instru-ment binding a person and, in more cases, his heirs to fulfill certain obligations.

Bonded Goods .- Goods in charge of the officers of customs the duties on which bonds are given at the

custom house.

Bonus .-- A premium or extra sum for a loan, a charter, or other privilege. Book-Debt .- An entry or charge on a

ledger; called also an open ac-count, in contradistinction to a written promise or note.

Bottomry Bond .- An obligation given for a loan upon a vessel and accruing freight.

Breach .- In the law of contracts, the violation of an agreement or obli-

gation. Breakage .- An allowance made by the shipper or seller on certain descriptions of fragile goods.

Broker .- A person who transacts business for another, commonly in stock, money, etc., using the name of his principal.

Brokerage.—The fee charged for transacting business by a broker. Bulls and Bears.—Persons engaged

in the gambling transactions of stock exchange; the hulls are personally interested in tossing up the prices of certain goods, while the bears are fighting to pull down prices.

Bullion.—A commercial name for un-coined gold or silver.

By-Bidder .- A person employed at auctions, in order to raise the price

of articles to be sold.

By-Laws.—The private laws made
by a corporation for its own government.

Capital.—The stock employed in trade; the fruit of past labors saved.

Capital Stock .- The fund or property, as a whole, contributed, or supposed to have been contributed, to a corporation at its organization, as its property.

Carat.—An imaginary weight that expresses the fineness of gold.

Cargo.—A ship's lading or freight. Cashier.—One who has charge of money and superintends the receipts of payments.

Caveat Emptor.—A Latin phrase,

meaning, "let the purchaser be-ware," and applies to a case in which the thing sold is before the buyer and he examines it.

Centage .- A rate by the hundred. Certified Check .- A check which has been certified by the bank on which it is drawn, making the bank absolutely responsible for its pay-

ment.

Certificate.-A certificate issued by a bank or banker, showing that a certain sum of money has been deposited there, payable to a certain person, or to his order, or to the bearer.

Certificate of Stock .- A certificate given by the proper officers of a corporation, showing that a certain person owns a certain number of

shares of the capital stock. Certification of Check.—The signature of the proper officer of the bank, written across the face of the check, sometimes with and sometimes without the word "certifled" or "good."
Chancellor.—The chief judge of a

court of chancery or equity.

Charter .- An instrument in from the sovereign power or legislature, conferring certain rights or privileges.

Charter Party .- The written instrument by which the owner of a ves-sel lets it, or a part of it, to an-

other.

conditional hattel Mortgage.—A conditional sale of personal property, one Chattel which is to become void if a certain thing happens; chiefly used as the security for the payment of money.

Chattels .- Commonly means goods of any kind, or every species of personal property.

Check .- A written order for money drawn upon a bank or banker, and

payable immediately.

Choses in Action .- Things of which the owner has not possession, but merely the act of legal action or possession, as notes, accounts, etc. hoses in Possession.—Things in

Choses in possession of the owner; circulating medium-cash and bank notes payable on demand; the medium of exchange. Civil Law.—The system of law of

ancient Rome.

Civil Remedy .- The method of redressing an injury inflicted by one person upon another bу legal measures.

Clearance .- Permission from a custom house officer for a ship to sail. Clearing House.—A kind of bank-ing exchange for the convenience

of daily settlements between banks. Clerical Error .-- An error in calcu-

lating or other accidental error on books or documents. Collateral .- Property pledged as se-

curity for the performance of a contract.

Commerce.—The exchange of mer-chandise on a large scale.

Commercial Paper .- Bills of exchange, drafts or promissory notes given in the course of trade.

Common Carrier.—One who, as a business, undertakes for hire to transport from place to place passengers or goods of all who choose to employ him.

Coasting .- Sailing near land, or vessels trading between parts of the same country.

Codicil .- A supplement to a will.

Common Law .- The unwritten law, as distinguished from written or statute law; the old law of England, that derives its force from long usage and custom.

Commission .- The brokerage or allowance made to an agent or factor for doing business for an-

other.

Competency .- The legal fitness of a witness to give evidence on the trial of an action.

Composition Deed .- An agreement between an insolvent debtor and his creditors by which, upon payment to each of some fixed proportion of his claim, they all agree to release the debtor from the balance of their claims.

Compromise.—An agreement between a debtor and his creditors by which they agree to accept a certain proportion of the amounts due, and discharge him from the remainder.

Concurrent .- Existing together; consideration is concurrent when the acts of the parties are to be performed at the same time.

Condition Precedent .-- An act which must be performed by one person before another is llable, or in order to make him liable.

Cooperage.—Charges for putting hoops on casks or bales.

Consideration.—The reason for in-ducement in a contract upon which the parties consent to be bound.

Consignee .- One to whom merchandise, given to a carrier by another person for transportation, is directed.

Consignor .- One who gives merchandise to a carrier for transportation to another.

Compact .-- A covenant or contract between different parties.

Company.—A number joined together to undertake some common enterprise.

Compound .- To adjust by agreement differently from the original terms:

to settle by compromise.

Compromise.—A friendly settlement of differences by mutual concessions.

Consignment.—The act of consigning, as charge for safe-keeping, and management, as goods, property, etc.

Consul .- A person commissioned to reside in a foreign country as an agent of the Government.

Contraband .- Prohibited merchandise or traffic.

Contract.-To make an agreement; to covenant.

Conveyance.-The act of carrying by land or water; the means of conveyance; a written Instrument by which an estate in lands is transferred from one to another.

Copartnership .- A joint interest in business.

Corporation.—An orperation.—An artificial person created by law, consisting of one or more natural persons, united in one body, and endowed with the capacity of perpetual succession, and of acting in certain respects as a natural person.

Counter-Claim .- Same as set-off; one debt or claim to set off another. Counterfeit.-To copy or imitate

without authority, with a view to defraud; a forgery.

Countersign .- To sign in addition to the same of a superior that of the secretary or subordinate officer, as bank notes are signed by the presiand countersigned by the cashier.

Coupon .- An interest warrant printed at the ends of bonds, to be cut off

when the interest is paid.

Course of Exchange.—The current price of bilis of exchange between two places.

Covenant. - Any compromise tained in a scaled instrument.

Covenantee.—The person to whom

the promise is made.

Coverture.-The legal state and condition of a married woman, being considered as under the shelter and protection of her husband.

Credentials .- Testimonials or certificates showing that a person is entitled to credit, authority or official

powers.

Credit.—Trust given or received; mercantile reputation entitling one to be trusted; also the side of an account on which payment is entered.

Creditor .- One to whom money is

Curb-stone Brokers .- A term applied to a class of stock operators in New York who do business on the sidewalk or pavement.
Currency.—That which circulates as

a representative of value. Customs.—Customary toll, tribute on imported or exported goods.

House .- A building where Custom duties are paid and vessels entered and cleared.

D

Damages .- A compensation, usually in money, to one party for a wrong done him by another.

Days of Grace .- Days, usually three, allowed by custom for the payment of bills and notes beyond the day expressed for payment on the face of them.

Debase .- To lessen in value by adul-

teration.

Debenture.-A certificate given by the collector of a port of entry to an importer for drawback of duties on imported merchandise, which, when the merchandise is exported, are to be refunded.

Debit .- A recorded item of debt, also the debtor side of an account.

Debt .- That which is due from one person to another.

Debtor .- The person who owes an-

other, either money, goods or services.

Deed .- A sealed instrument in writing used to transfer property, usually real estate.

Default .- Omission, neglect or fail-

Defaulter .- One who fails to discharge a public duty, as to account for money intrusted to him. Defalcation.—A diminution; deficit. Defense.—The answer made by the

defendant to the plaintiff's action by demurrer or plea at law.

Del Credere .- A commercial term implying a guarantee of the solvency of the purchaser.

Delivery .- Giving money or goods to another.

Demand.—A peremptory urging of payment of a claim and exaction. Demise .- To convey, to bequeath by will.

Demurrage.-Allowance for detention of a ship.

Deposit.—A delivery of goods to be kept and returned without recompense.

Depository .- A trustee, one to whom something is committed for safekeeping, also the place where such deposited goods are kept in store. Deputy.—One appointed to act for

another; a representative or delegate.

Diplomacy .- The science of conduct-

ing negotiations between nations.
Deviation.—In the law of marine insurance, a voluntary departure
without necessity from the regular course of the specific voyage insured.

Discount.—An allowance or deduction made for the payment of money before it is due.

Discount Days.—The days of the

week on which the directors of a bank meet to consider paper offered for discount.

Disability .- Want of qualification: incapacity to do a legal act. Disaffirmance .- The annulling or can-

cellng of a voidable contract.

Disfranchisement.—Expulsion of member from a corporation. Dishonor .- The non-payment of ne-

gotiable paper when due. Distress.—The taking of personal property to enforce the payment

of something due, as rent. Divorce.-The separation of husband

and wife by the sentence of law.

Dividend.—A percentage of profits
paid to stockholders.

Domestic Relation.—The relations of the members of a household or family.

Donce.—The person to whom a gift or donation is made.

Donor .- One who confers anything gratultously.

Dormant-Silent partner, one who takes no share in the active business, but shares profit.

Drawback .- Money paid back on goods exported, a part or the whole

of the duty charged. Draft .- An order from one man to

another directing the payment of money, a bill of exchange. Drawee .- The person upon whom a

bill of exchange is drawn, who is directed to make the payment.

Drawer.—The person who draws or makes a bill of exchange.

Dress Goods .- A term applied to fabrics for the garments of women and children, usually of mixed materials, such as silk and cotton silk and worsted, etc. Due Bill.—A written acknowledg-ment of debt; not transferable by

mere indorsement.

Dun .- To press urgently the payment of a debt. Duplicate.-A copy or counterpart of

anything. Duress .- Personal restraint, or fear of personal injury or of imprisonment; it nullifies all contracts into

which it enters.

Duties.—A tax levied by the Government on imported goods; money paid to the Government on imported and exported goods.

Earnest—Something given by the buyer to the seller, to bind the bargain and prove the sale.

Easement.-The right to use another's land.

Effects .- All kinds of personal prop-

Ell.-An English measure of length equal to 11/4 yards; the Scotch ell

is 1 3-100 yards. Embargo.—A detention of vessels in port; prohibition from sailing.

Embarrasament.—Perplexity arising from insolvency or temporary inability to discharge debts.

Embassy.-The public business intrusted to diplomatic officers.

Enact.—To make a law or establish by law. large

Engrosser.—One who buys quantities of any goods in order to control the market.

Embezziement.-To appropriate public money to private use by a breach of trust.

Emporium .- A place of extensive commerce, a market place.

Emblements .- Growing crops of any kind produced by expense or labor. Eminent Domain .- The right of sovereign power to take private property for public purposes.
Equity of Redemption.—The right

which a mortgagor has to redeem his estate after the mortgage has come due.

Endorse.—To endorse a note by writing the name on the back.

Entrepot .- A bonded warehouse; storehouse for the deposit of goods: a free port.

Equity .- A system supplemental to law, qualifying or correcting it in

extreme cases.

Escrow .- A deed or bond delivered by a third party to be held or delivered to the guarantee or creditor upon the performance of somecondition.

Estate.-The degree, quantity, nature, or extent of interest which a person has in real property.

Estoppel.-A stop, a bar to one's al. leging or denying a fact contrary to his own previous actions, alle-

gation or denial. Exchange.—Act of bartering; a bill drawn for money; a place where merchants meet; difference between the value in two places, or pre-mium or discount arising from purchase or sale of goods.

Executed (of a contract).—Finished. Excise.—Taxes or duties on articles produced and consumed at home;

internal revenue tax.

Execution .- A written command issued to a sheriff or constable after a judgment directing him to en-force it; the act of signing and sealing a legal instrument, or giving it the form required to make it a valid act.

Executor .- The person appointed by a testator to execute his will. Executory .- To be executed in the

future. Exports .- That which is carried out

of a country, as goods and produce in traffic.

Express .- A courier; also regular and quick conveyance for packages, etc.

Face .- The amount expressed on a note or draft.

Factor.-An agent who sells and buys in his own name, being entrusted with the goods, in this respect dif-

fering from a broker. Facture.—An involce or bill of par-

cels. Failure .- Becoming bankrupt,

pension of payment. Fac-simile.-An exact copy or likeFavor.-A note or draft is said to be

in favor of the payee.

Fee Simple.—Full ownership in land. Feud .- An estate in land held of a superior by service; a flef.

Feudal System .- The system of feuds or fiefs as existing, especially during the middle ages.

Firance.-Revenue, public income.

Financier .- One skilled in financial

operations; a treasurer. Firm .- All the members of a partner-

ship taken together, a business house or company, the title used by a business house.

Firkin.—A measure of capacity: the fourthpart of a barrel, or eight or nine gallons.

Fiscal.—Pertaining to the public

treasury or revenue.

Fixtures.—The part of the furniture of a store or office which is not movable, as gas pipes or burners,

partitions, etc. F. O. B.—Free on board; the bill or invoice with F. O. B. includes the transporting to the shipping port and all the shipping expenses. Foreclose.—To cut off by a court judgment from the power of re-

deeming mortgaged property.

Foreclosure .- The process of cutting off the right or interest of the mortgager and his assignees in mortgaged premises. Forestall.—To buy goods on their way to market, intending to sell

again at a higher price.

Forfeiture.—A loss of property, right, or office, as a punishment for an illegal act or negligence; sometimes used for the thing forfeited.

Folio .- A page in an account book, sometimes two opposite pages bearing the same serial number.

Franc.—A silver coin used in France equal to about nineteen cents. Frank .- To exempt from charge of

portage. Fraud .- A cunning deception or arti-

fice to cheat or deceive another.

Free Trade.—The policy of conducting international commerce with-

out duties. Freehold .- Land held by free tenure, or in fee simple, subject to no su-perior or conditions.

Freight .- Merchandise being moved from one place to another; the price paid for carrying freight; also a load or burden.

Funded .- Turned into a permanent loan, on which annual interest is

Funds .- The supply of money or the capital.

Forgery .- The fraudulent making or altering of a written instrument.

Gain .- Advantage, acquisition, accu-

mulation, profit. Garbied.—Drugs, spices or other goods which have been sorted or plcked over and freed from impurities.

Gauging .- Measuring the capacity of

casks, etc. Average.-A contribution made by the owners of a vessel and cargo toward the loss sus-tained by one of their number, whose property has been sacrificed for the general safety.

General Ship .- A vessel navigated by its owner, receiving and carrying freight indifferently for all who

apply.

Gist .- The principal point of a question, the plth of the matter.

Go-between .- Agent for both parties, Goods .- Same as chattels and effects. Good Will.—Benefit arising from the successful conduct of business by a certain person or firm, usually in a certain place; it is a property subject to transfer.

Grant.—A transfer of a property by deed; a conveyance made by the

Government.

Gross .- Twelve dozen. Gross Weight .- Weight of goods including dust, dross, bag, cask, etc.

Guaranty (or guarantee).—A con-tract whereby one person engages to be answerable for the debt or default of another person.

Guarantor .- He who makes a guar antv.

Guardian .- One who has the care of the person and property of an orphan or other person.

н

Habeas Corpus .- A writ to bring a party before a court, to prevent false imprisonment.

Haberdasher.—A seller of wares, as thread, pins, etc.

Hand-book .- A book of reference; a manual.

Hand-money .- Money paid the purchaser at the closing of a contract or sale.

Harbor .- A port or haven for ships. Haven .- A port or shelter for ships, a harbor.

High Seas .- The uninclosed waters of the ocean outside the boundaries

of any country. Hellow Ware.—A trade name for camp and kitchen utensils made of cast-iron or wrought-iron.

Honor .- To accept and pay when

Husbandage.--An owner's 10 agent's commission for attending to a ship.

Hypothecate.-To pledge for the security of creditor.

Infant .-- In law, one under the age of twenty-one years.

Impolite.-Wanting in prudent management; not politic.

Import .- To bring in from abroad or a foreign country.

Importer .- The merchant who imports goods.

Imposition.—Tax, toll, duty or excise prescribed by authority.

Impost.—A tax or duty imposed on

imported goods. Indemnify.-To recompense for loss,

to reimburse. indenture.-A mutual agreement in

writing. Indorsement .- A writing on the back

of a note. Indorser .- The one who makes the indorsement.

indorsee .- The person in whose favor the indorsement is made.

Injunction .- An order or direction of the court compelling a certain person to refrain from doing some particular act or thing.

Indulgence.—Extension of time of payment; forbearing to press for

payment inland Bills .- A draft or bills of exchange drawn on a party in the same country as the drawer.

Insolvency .- Inability to discharge debts when due.

insurance.- Indemnity from loss; the premium paid.

Installment .- Payment of parts at different times. Interest.—Premium paid for the use

of money.

internal Revenue.-The part of the revenue of our Government which is collected in the form of internal duties.

Intestate.—Without a will.

Invalid .- Of no legal force.

inventory.—A list of merchandise made periodically for the purpose of knowing the quantity and value of unsold goods, in order to ascertain the condition of business.

Investment .--- The laying out money in the purchase of some species of property.

Invoice .- A written account or bill of merchandise bought; a bill of items.

Jett'son.—Throwing goods overboard in case of peril, to lighten and preserve the ship.

Joint Stock .- Stock held in company;

a species of partnership.

int Tenancy.—Joint occupancy; not so close intimacy as partnership.

Journal.-A book used to classify and arrange business transactions. Judgment.-The sentence of the law pronounced by the court upon any matter contained in the record, or in any case tried by the court.

Judgment Debtor. - Party against whom a judgment is obtained.

Judgment Note.-A note in the usual form, with the addition of the power to confess judgment if not paid when due.

Jurisdiction .- The power of exercising judicial authority.

#### К

Kilogram.—The French measure of weight, equal to 2½ lbs. avoirdupois, or 1000 grains. Kiting or Kite Flying.—Exchanging

checks on different banks, for the purpose of obtaining the use of money for a single day.

Lame Duck .-- A stock broker's term for one who fails to meet his engagements.

Landlord .- One who owns and rents or leases lands or houses: a hotelkeeper.

taking personal Larceny.—Theft: property belonging to another.

Law Merchant.-The general body of usages in matters relative to commerce.

Lay Days.-Days allowed for loading and unloading a cargo.

Lay Down .- A phrase used to express the entire cost of a commodity, including transportation, etc., at a place remote from its production or purchase.

Lease.-A contract by which one grants to another for a period the use of certain real estate.

Legal Tender .- That kind of money which by law can be offered in payment of a debt.

Legacy .- A gift by will of personal property.

Ledger .- A book in which a summary of accounts is preserved.

Lessee .- One who takes an estate by a lease.

Letter of Credit.—A letter authoriz-lng credit to a certain amount to be given to the bearer; also a written direction by some wellknown banker to someone to draw upon him for any amount he chooses up to a specified limit. Liability .- Obligations, debts.

Libel.—To defame by public writing, printing, signs, or pictures.

License.—A grant or permission by

the authorities.

Lien .- A legal claim on property for debt.

Liquidate.-To clear off; to settle;

to pay as debts.

Lloyds.—A marine insurance associ-ation in London. The records of this society contain a complete history of the sea, so far as concerns the number of shipwrecks, collisions, fires, piracies, mutinies, etc.

Litigation.—The act of litigating; judicial contest; a suit at law.

Loan .- A thing furnished to another for temporary use, on condition

that it be returned. Long Price.—Price after the duties are paid.

### M

Malfeasance .- Evil conduct; illegal deed.

Maintenance.-Support by means of food, clothing and other conveniencles.

Mandate.-A bailment of personal property in which the bailee undertakes without compensation to do some act for the bailor in re-spect to the thing bailed.

Mandatory .- A person to whom a charge is given or business intrusted.

Manifest.-An invoice of a ship's cargo.

Manufacture.—The process of reduc-ing raw material into a form suitable for use.

Marine.-Relating to the ocean: nautical.

Maritime Law.-Law relating to harbors, ships, seamen.

Marc .- A weight of gold and silver, used as a measure of these metals in Europe.

Mart .- A commercial center: a mar-

ket place. Maturity.—The date when a note or draft falls due or is payable. Mercantile Law .- Law pertaining to

trade and commerce. Merchandise.-Whatever is sold or

bought in trade.

Merger.—The absorption or extin-guishment of one contract into another.

Metallic Currency .- Silver and gold coins, forming the circulating medium of a country.

Minor .- Same as infant;

under twenty-one years.
Misfeasance.—A trespass; doing improperly an act that might be done lawfully.

Misdemeanor.-A lower kind crime; an indictable offense not

amounting to felony.

Mitigation. - The abatement of a judgment, penalty or punishment. Money.—Coin; any currency law-fully used instead of coin, as bank-

notes.

Money Broker.—A broker who deals

in money.

Monopoly.—Sole permission or appropriated power to deal in any species of goods.

Monetary.—Pertaining to or consist-

ing in money.

Mortgage .- A grant or conveyance of an estate or property to a creditor, for the security of a debt, and to become void on payment of such debt.

Municipal .- Of or belonging to a city.

Municipal Law .- The system of law of any one nation or State. Muster .- A collection of samples.

National Banks.—Banks organized under the conditions of an act of Congress; they can issue banknotes only to the amount of United States Bonds they have deposited in the U.S. Treasury; the object is to unify the currency.

Navigation.—The science of conduct-

ing vessels on the ocean.

Negotiable .- Transferable by assignment or indorsement to another person.

Negotiate.-To transact business: to hold in intercourse in bargain or

trade.

Negotiable Paper .- Notes, bills and drafts which may be transferred with all their rights by indorsement or assignment

Net .- Clear of all charges and deductions.

Net Profits .- Clear profit after deducting losses.

Net Weight .- Weight of merchandise without bag, box or covering. Nominal.-In name only, very small,

as a nominal price.

Non-feasance .- An omission of what ought to be done.

Note .- A written or printed paper acknowledging a debt and promising payment.

Note Book.—A book in which notes of hand are recorded. Notarial Seal .- Seal of a notary pub-

lic. Notary Public .- A public officer who attests or certifies to acknowledgments of deeds and other papers, protests notes and bilis.

National Currency.-National bank

hills

National Damages .- Those given for the violation of a right from which no actual loss has resulted.

Nonuser .- A fallure to use rights and

privileges.

Obligation .- A duty; a blndlng engagement: a bond with a condition annexed.

Open Account .- A running or unsettied account with an individual or

firm.
Open Policy.—An insurance policy covering undefined risks, which provides that its term shall be-come definite by subsequent addi-

tions or indorsements.

Option.—Permission to choose; a stockholder's term for the privllege of taking or delivering at a future day a certain number of shares of a given stock at a price agreed upon.

Order .- A commission to purchase; direction to pay money or to de-

liver goods.
Order Book.—A book in which orders

received are entered.

Ordinary .- A ship in harbor is said to be in ordinary; of medium quality.

Ordinance.-A rule, or order, or law; usually applied to the acts or laws passed by the common council of

a city.

Ordnance.-All kinds of large guns. Outlawed .- A debt is said to be outawed that has existed for a certain length of time, after which the law, on that ground alone, prevents its being enforced.

Ostensible Partners .- Those known

to the public.

Outstanding Accounts .- Book debts not yet collected.

Outstanding Debts.-Unpaid debts. Overdraw .- To call for more money

than is on deposit. Overdraft .- A check paid above the amount on deposit.

Overdue.-Applied to a note or draft. the specified time for payment of which has passed.

Overt .- Apparent, manifest; open. Owe .- To be obliged to pay.

Panic.-A financial crisis among business men; a monetary pressure; generally the result of overtrading and speculation.

Paper Money .- Bills of banks or of the Government passing current

as money.

Par.—State of equality in value, equality of nominal and actual vaiue.

Parol.-Oral declaration: word of mouth.

Par Value.—The face or nominal

value of a commercial paper.
Par of Exchange.—The value of a
unit of one country's coinage expressed in that of another's.

Partner.-An associate in business; member of a partnership.

Partnership.—Contract of two more persons to join money, stock or skill in trade for mutual benefit.

Part Owner .- One of several owners of a ship; the relation differs ma-

terially from partnership.

Pass Book.—A book kept by a customer in which entries of purchases is made; a bank book.

Passport.—A permission from a Government to travel, with identification and certificate of nationality; a document carried by neutral merchant vessels in time of war for their protection.

Pawnbroker.-One who holds money at interest on security of goods

deposited.

Payable.-Justly due; capable of payment.

Payee.—The person to whose order a note, bill or draft is to be paid. Payor .- One who pays.

Penalty.—Forfeiture, or sum to be forfeited for non-performance of an agreement.

Per Cent.-By the hundred; rates of

interest, discount, etc. Percentage.-An allowance reckoned

by hundredth parts; commission. Per Contra.—To the opposite side of an account. Permit.-Written authority to re-

move dutiable goods.

Petty Cash Book .- Account of small receipts and expenses.

Pledge.—A pawn; personal property deposited as security.

Policy.—The written contract of insurance.

Port.-A harbor for vessels; a commercial city.

Port of Entry .- A port where a custom house is established for the entry of imports.

Post Dated .- Having a date subsequent to that at which it is actually made.

Posting.—To transfer from day book or journal to the ledger.

Post Obit.—A promise to pay loans

after the death of some person. Power of Attorney .- Written authority from one person to another to

act for him.

Preferred Creditor. -- One claims a bankrupt debtor elects to settle first.

Premises .- The thing previously men-

tioned, lands, estate, etc.

Premium.—The percentage paid for insurance; the excess of value above par. Price.—Current value, or rate paid

or demanded in barter.

Price Current-A statement showing prevailing price of merchan-dise, stocks or securities. Price List.—A list of articles with

prices attached.

Prima Facie .- At first view of appearance.

Principal .- An employer; the head of a firm; a capital sum placed at interest.

Proceeds .- The sum realized by a

Procuration.—A general letter or power of attorney; an instrument empowering one person to act for another.

Produce.-Farm products of all

kinds.

and Loss .- An account in Profit which gains and losses are balanced.

Promissory Note .- (See Note). Pro Rata .- A proportional distribution.

Protective Tariff.—Duty imposed on imports to encourage manufacture. Protest .- A formal declaration made by a notary for want of payment of a note or bill of exchange.

Purveyor.-One who supplies provisions.

Q

Quarantine.—To prohibit a ship from intercourse with shore when sus-pected of having contagious dis-eases on board; the place of such prohibition.

Quasi.—As if; as though; quasi corporations are bodies like corporations, and yet not strictly cor-

porations.

Rate.-The ratio or standard. Ratification .- Giving force to a contract made by the person in question, but now in force, or by another man as his agent.

Real Estate.-Property in houses or lands.

Real Property.—That which is fixed or immovable; land with whatever is erected or growing upon it, with whatever is beneath or above the surface.

Rebatement.-Deduction on account of prompt payment, discount.

Receipt.-An acknowledgment of pay-

ment in writing. Receipt Book.—A book in which re-

ceipts are filed.

Receiver .- An officer appointed by a court to hold in trust property in litigation, or to wind up the affairs of a bankrupt concern.

Reciprocity Treaty .- A commercial treaty between two nations secur-

ing mutual advantages.

Reclamation .- A claim made against the seller of goods which prove deficient or defective.

Refund.—To repay; to restore.

Register .- A ship's paper issued by the Custom House, stating description, name, to and ownership. tonnage, nationality

Registry.-The entering or recording of real estate conveyances in books

of public record.

Remittance.—Transfer of funds from one party to another.

Release .- An instrument in the general form of a deed which in distinct terms remits the claim to which it refers.

Remedy.—The legal means employed to enforce a right or redress an injury.

Rent.-Compensation for the use of

real property. Repository .- A warehouse or store-

house. Reprisal .- The seizure of ships or

property to indemnify for unlawful seizure or detention. Resources .- Available means; funds. Respondential Bond.-A pledge of a

cargo at sea. Retail .- Selling goods in small quan-

tities.

Retire .- To take up one's note before due; to relinquish business.

Returns .- Profit of an investment. annual Revenue .- Income : return; income of a nation for public uses. Revenue Cutters .- Small vessels to aid revenue officers in the collection of duties or to prevent smuggling.

Reversion .- Right to possess property after the happening of some event, as the death of a person.

Revert.—To fall again into the pos-session of the donor, or of the former proprietor.

S

Sale .- Transfer of property for a consideration.

Salvage.—A compensation to those who rescue a ship or a cargo from loss.

Salvor .- One who voluntarily saves a ship or a cargo from peril.

Sans Recourse .- Without recourse; sometimes added to the indorsement of a note or bill to protect an indorser from liability. Scrip.—Certificate of stock given be-

fore registration.

Secondarily .- Applied to an indorser of a note or drawer of a bill, signifying that he is only conditionally liable, or liable if the maker and drawee fail.

Seaworthy .- Fit for a voyage and

properly equipped.

Sample .- A small portion of merchandise taken as a specimen of quality.

Securities .- Documents securing a

right to property.

Seize .- To take possession of by virtue of a warrant or legal authority.

Seller's Option.—A term mostly con-fined to the sales of stocks, for a sale which gives to the seller the option of delivering the article sold within a certain time, the buyer paying interest up to delivery.

Shipment.-That which is shipped;

embarkation.

Set-off .- A claim which one party has against another who has a claim against him; a counter claim.

Shipper .- One who gives merchandise to another for transportation. Sight.—Time of presenting bill to

Short.—To "sell short" is to sell for future delivery what one does not

possess, in hopes that prices will fall.

Shrinkage .- Reduction in bulk or measurement.

Short Exchange.—Bills of exchange payable at sight or in a few days. Sight Draft .- One payable at sight,

i. e., when presented.

Signature.-The name of a person written with his own hand, signifying his consent to the writing above it.

Silent Partner .- One who furnishes capital, but takes no active part in

a business.

Simple Interest.-Interest on princi-

pal alone; not compound.

Sinking Fund .- A fund set apart from earnings or other income, for the redemption of debts of Government, or of a corporation.

Sleeping Partner .- One who shares the profits of a business without letting his name appear, or taking part in it actively.

lop Shop.—A store where cheap

ready-made clothing is sold.

Smuggler .- One who avoids the payment of duties by secretly importing goods into a country; a vessel engaged in smuggling.

Solvency .- Ability to pay all debts or just claims.

Specialty.-A contract or obligation under seal.

Statement.—Usually a list of property, or resources and liabilities. Speculation .- A business investment out of the ordinary run of trade.

Stamp Duty .- Law requiring stamps to be affixed to checks and proprietary articles.

Solicitor.—An attorney or advocate; the title of a person admitted to practice in the court of chancery or equity.

Staple.-Principal commodity of a

country or district. Statistics.—A collection of facts arranged and classified.

Statute.—A positive law, established by act of legislature.

Statute Law.—Enactments by the legislature, written, as opposed to common or unwritten law.

Sterling .- Lawful or standard money

of Great Britain.

Stock .- Shares in the capital of a corporation; goods on hand.

Broker .- One who buys and sells stock on commission. Stock Exchange.—Place where shares

of stocks are bought and sold. Stockholder .- One who holds shares

of stock. Stock Jobber .- One who speculates in

stocks. Stipend .- Settled pay or compensa-

tion for services. Stipulation .- A contract or bargain.

Stoppage in Transitu.-The seller of goods upon credit resuming possession after their shipment before they get into actual possession of the buyer.

Storage.—Sums paid for storing goods; the business of storing goods.

Stowage.—Careful arrangement cargo in a ship.

Sundries.-Unclassified articles.

Sue .- To seek justice by a legal proc-

Supercargo.-An agent who accompanies a cargo to care for it and ' sell it.

Surcharge. - An overcharge.

Surety.—One who binds himself to pay money in case another person fails to pay, to fill a contract or to

serve with integrity.

Surveyor .- Agent of urveyor.—Agent of an insurance company to examine and report on applications for marine or fire insurance.

Suspend .- To fail; to stop payment. Sutler .- One authorized to sell goods to an army

Suttle Weight.-Weight after tare is deducted.

Suspense Account .- An account used to contain balances of personal accounts which may be considered doubtful.

Tacit .- Implied but not expressed. Tally .- Keeping account by checking off.

Tally Man .- One who receives payment for goods in weekly install-

Tare .- An allowance for the cask, bag or covering in which goods are contained.

Tariff.—A list of duties to be imposed on goods imported or exported.

Tax .- A levy made upon property for the support of the Government. Teller .- Officer in a bank who receives and pays out money.

Tenants .- Those who lease or rent real estate.

Tenants in Common .- Persons holding land, etc., by several and distinct titles and not by joint title.
Tenement.—That which is held.
Tender.—Offer to supply money or

articles; to offer or present for acceptance.

Tenure.—The manner of holding property in lands.

Testator.—The person leaving a valid

will. Textile Fabrics .- All kinds of woven goods, generally restricted to piece spools.

Tickler .- A book containing memoranda of notes and debts, arranged in the order of their maturity.

Time Bargain .- A contract for the future sale of stock.

Time Draft .-- A draft maturing at a future specified time.

Tonnage .- The weight of goods carried in a boat or ship.

Trade Discount.—An allowance made to dealers in the same line.

Trade Mark.—Letters, figures, or devices used on goods and labels which a manufacturer has the sole right to use.

Trade Price .- That allowed by wholesale dealers to retailers.

Trade Sale .-- An auction by and for trade; especially of booksellers.
rades Union.—A combination of

Trades workingmen to protect their own interests.

Traffic .- Business done, especially that of a railroad.

Transshipment. - Removing goods from one ship or conveyance to another.

Transportation. - Conveying.

from one place to another.

Transit Duty.—Tax imposed on goods for passing through a country.

Traveler. A commercial agent: drummer.

Transact.-To perform commercial

business; to conduct matters.

Transfer.—To convey right, title or property.

Treasury.-A Treasury.—A place where public revenues are deposited and kept.

Treasury Notes.—Notes of various

denominations issued by the Gov-ernment, and received in payment of all dues, except duties on imports.

Treaty .- An agreement or compact between two or more nations.

Tret.—Allowance for waste of 4 lbs. in 104 lbs., after tare has been deducted.

Triplicate .- To make three copies of a paper; the third copy.

Trustee .- One who is intrusted with property for the benefit of another.

Ullage .- What a cask lacks of being full.

Unclaimed Goods .-- Goods in Government storehouses unclaimed after three years from importation, or on which duties have not been paid, may be sold at auction.

Ultimo or Ult-Last month.

Uncurrent.-Not current; not passing in common payment. Undersell .- To sell below the trade

price.

Underwriter.—An insurer, so called because he underwrites his name to the condition of the policy.

Unseaworthy.—Unfit for voyage condition or equipment.
Unsound.—In bad condition;

doubtful solvency. Usage of Trade .- Custom, or the fre-

quent repetition of the same act in business. Usance.-Business custom which is

generally conceded and acted upon. Usury .- Exorbitant interest, formerly merely interest.

force.

in law.

a thing.

eration indefinitely.

or

United States Notes .- A written promise to pay to the bearer, on demand, a certain sum of money, issued by the United States Government and used as money.

# Valid .- Having legal strength

Validity.-The quality of being good

Value .- Rate of estimated worth; amount obtainable in exchange for

Value Received .- Phrase used in notes or bilis to express a consid-

Valued Policy.-One which fixes the

value of property insured.

Vend .- To sell. thing is sold. Vendee.—The Vender .- A seiler. Vendue.-An auction sale. Venture.-A mercantile speculation or investment. Void .- Null; having no legal or binding force. Voidable.—Having some force, but capable of being adjudged void. Voucher.—A book, receipt, entry or other document which establishes the truth of accounts. Page Alphabetical Table of Contents.....5-America's merchant marine...... 483 Automobile laws 310
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### W

Wages .- Hire, reward, salary. Waiver .- The act of waiving; of not insisting on some right, claim or privilege. Wares .- Goods, merchandise, com-

modities.

Warehouseman.-One who stores

goods for pay.

Warrant.—A precept authorizing an officer to seize an offender and bring him to justice; also to insure against defects.

Warranty. - An undertaking that goods of title are as represented.

Wastage.-Loss in handling; shrinkage.

Waste.-Refuse material.

Waybill .- A document containing a list and description of goods sent by a common carrier by land.

Wharfage.-Fee or duty for using a wharf.

Wharfinger .- The proprietor of wharf.

Wreckage. - Merchandise wreck.

Wreck-Master.—A person appointed by law to take charge of goods, etc., thrown ashore after a shipwreck.

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